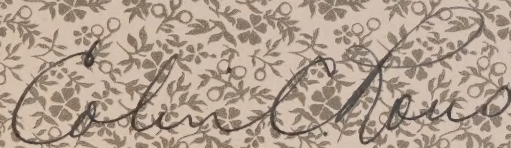
MILFORD NEWS
(CANADA)
1926



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Again~Those Thirty-four Pieces of "Silver"

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MILFORD NEWS

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52

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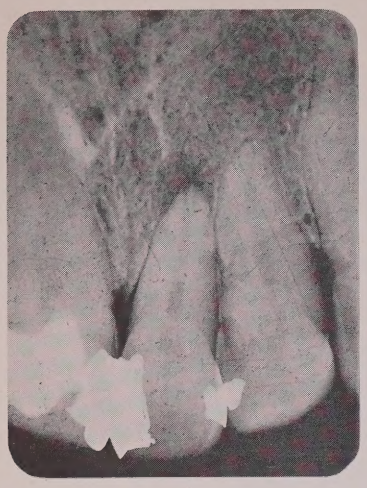
ALSO IN THIS ISSUE:

Why Soap in Dentifrices?—"*Hide and Seek*" in the Antrum of Highmore



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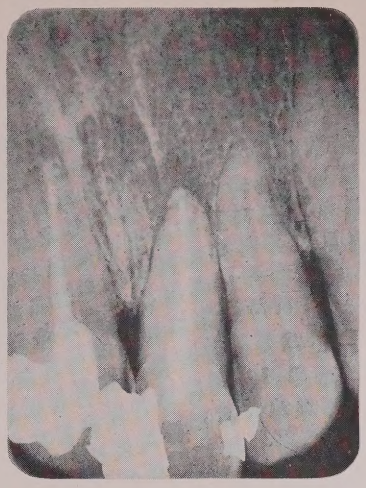

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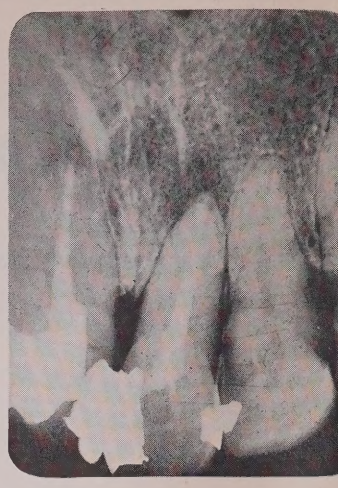

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Osogen Case No. 581

Bacteriological Report

UPPER LEFT CENTRAL
Cultured in Dextrose Brain Broth

Date—10-6-24

(1)	U. L. C. broach in canal	*No growth after 2 wks.*
(2)	U. L. C. paper point in canal	*No growth after 2 wks.*
(3)	U. L. C. paper point in canal	*No growth after 2 wks.*

These cultures were transferred to Hitchen's 0.1% Dex. agar on October 8th, and no growth occurred after two weeks' incubation.

Date—10-13-24

(1)	U. L. C. 2nd cotton	*No growth after 2 wks.*
(2)	U. L. C. paper point	*No growth after 2 wks.*
(3)	U. L. C. paper point	*No growth after 2 wks.*

Date—10-17-24

(1)	U. L. C. 1st cotton	*No growth after 2 wks.*
(2)	U. L. C. paper point	*No growth after 2 wks.*

Date—10-21-24

(1)	U. L. C. 1st cotton	*No growth after 2 wks.*
(2)	U. L. C. paper point	*No growth after 2 wks.*
(3)	U. L. C. fresh paper point	*No growth after 2 wks.*

October 6, 1924. Mr. J. S., age 51. Patient presented with two badly discolored upper centrals. Each of them failed to respond to vitality tests. Radiogram No. 1 shows a suspicious appearance at the apex of the right central and a rarefied area at the apex of the left central.

Patient had not been in good physical condition for a few months previously to being referred to the Caulk Clinic. Consequently, a physical examination was also made in conjunction with the dental examination. No organic disturbance was revealed.

This report is confined solely to the results accomplished on the upper left central. A report on the upper right central will be made later.

A culture was taken at the first sitting on October 6. A dressing of Eutone was sealed in the canal and patient dismissed for one week.

October 13. Eutone was removed and the tooth was again cultured. At this sitting the canal was treated with Osogen Fluid according to the prescribed technique.

October 17. The canal was treated with Osogen Fluid a second time.

October 21. The tooth was cultured again. A blunt gutta-percha point was placed in the canal to choke the apex since there was considerable exudate. Radiogram No. 2 shows this point in place. It was too long and, therefore, was shortened to the proper length.

Radiogram No. 3 shows the root canal filled with plastic Osogen to a slight excess with blunt gutta-percha point imbedded in it.

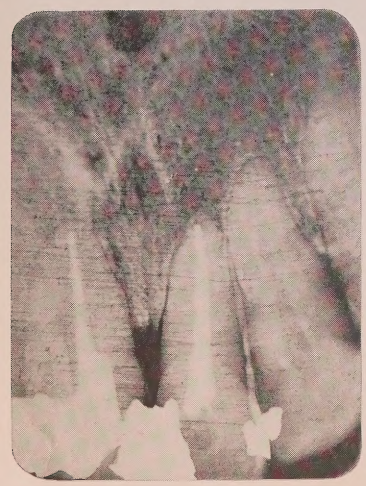
December 9. Radiogram No. 4 shows that the slight excess of plastic Osogen has been absorbed.

June 3, 1925. Radiogram No. 5 shows considerable repair about the apex.

July 16. Radiogram No. 6.

August 1. Radiogram No. 7 shows still further improvement.

October 7. Radiogram No. 8 taken a year after the filling of the canal shows decided repair about the apex. Compare radiogram No. 8 with radiogram No. 1. Tooth has remained comfortable since beginning treatment.



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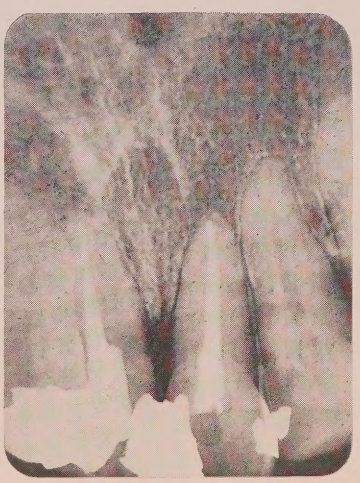

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Again ~ Those Thirty-four Pieces of "Silver"

Two and one-half years ago *Milford News* presented some horrible examples of amalgam fillings. The first article in the January 1923 issue gave proof to a New York dentist, who doubted the possibility of the existence of some bad amalgam fillings previously pictured in the same publication. This dentist said: "For fifty years I have no recollection of seeing any amalgam work as bad as you picture. I do not believe it possible for any man to turn out so outrageous a piece of work."

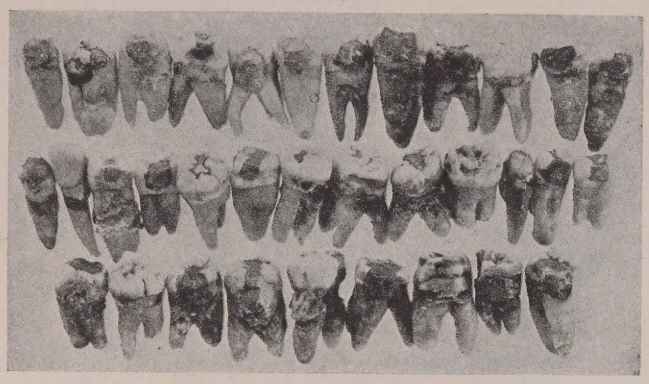
The comeback in the *Milford News* stated: "We took a bottle containing a miscellaneous lot of extracted teeth (thousands of those are kept here in Milford for research purposes), and we picked out all that had amalgam fillings of any sort. Eighty-three teeth were in the bottle. Thirty-four carried amalgam. We do not know where these teeth came from. Exodontists in several large cities have supplied specimens by the quart. No doubt, as you say, in your practice you do not see such work. Nevertheless here are thirty-four proofs that it actually does exist."

We stated that "since Dr. Black's time, amalgam technique has been pretty well standardized and the principles are generally understood. Manufacturers also for many years have known what qualities in material the profession requires.

"What faults then will account for these thirty-four specimens? Is the fault perhaps in wrong cavity preparation, careless packing, neglect to use a matrix, failure to form contours and to carve cusps and to polish? Is it in careless amalgamation, in failure to make a complete union of alloy and mercury, or in careless choice of materials to work with?"

Four months later we pictured the inside story of some of these thirty-four fillings. We stated that "very little study of cavities, margins, ditches, voids, pits and other points will reveal some of the features of amalgam work that should no longer be tolerated by any operator or patient."

We do not know what prompted the Dental Society of The State of New York to appoint a committee on scientific research to investigate the "Failures with Amalgam as Commonly Used." However, we congratulate the Dental Society of The State of New York for the interest which they have shown in this important part of routine dental practice.



It is not a question of merely plugging teeth with amalgam to get by, or of making restorations for art's sake.

We cannot ignore the damage done to the health of thousands of patients in whom teeth have become infected, in whom periodontoclasia has been caused, and in whom teeth have been lost through failure to observe the principles of careful cavity preparation and placing of amalgam.

There are too many examples of excellent work, not for art's sake or for the collection of greater fees, but for the sole purpose of stopping the ravages of further decay and ill health. This fact should teach us that dentists can and do restore teeth with amalgam in a manner which is a credit to the profession, which gives the operator a feeling of pride in work well done, and which gives the patient a sense of security from further damage from infection and loss of teeth.

The investigation of the Dental Society of The State of New York, as reported in the *Dental Cosmos*, substantiates the facts which were published in the MILFORD NEWS two and one-half years ago. It discloses that a large percentage of amalgam fillings are failures because of defective workmanship. Here are the apalling figures:

FAILURES

244 teeth examined by Dr. Harrington:

Buccal surfaces	*Occlusal surfaces*	*Approximal surfaces*	*All surfaces*
42%	14%	61%	34%

1067 teeth examined by Dr. Ottolengui:

Buccal surfaces	*Occlusal surfaces*	*Approximal surfaces*	*All surfaces*
69%	17%	80%	50%

Another significant finding was the small percentage of properly polished amalgam fillings:

POLISHED FILLINGS

Dr. Harrington's report - -	10%
Dr. Smith (285 fillings examined)	17%
Dr. Ottolengui (1067 fillings examined)	9%

The report reads "It seems a safe deduction to make that the polishing of an amalgam filling is an essential factor in success with this material."

Dr. Harrington, despite the awful array of bad workmanship with amalgam, still feels optimistic as to the value of amalgam in saving teeth. He says, "It seems to me that in this material we have, without doubt, our greatest tooth saver, and I do not feel, even after this review, at all pessimistic. Inattention to a few fundamentals should not discredit the material itself."

Dr. Charles F. Bödecker in his supplemental report, presented from the histologist's viewpoint, says:

"In closing, I wish to say that the teeth you have seen represent failures due to faulty work, and it would be very unfair to the dental profession to regard such as typical examples of our work. One point, however, I wish to stress and that is, that the vulnerable area of an amalgam, as well as of all fillings, is the cervical margin. We have seen that an overhanging filling allows food to accumulate at this area, causing recurrent caries and resulting in the final exposure and death of the pulp. These are no new facts, but it is the hope of the essayist that the sight of these sections will stimulate us to strive for a better finishing of the critical cervical margins."

Continued on page 6

THE attention of the patient, for whom you prescribe Mer Dentifrice, is immediately attracted to the leaflet attached to the tube. ¶ This leaflet can be of invaluable service to you because it truly represents the principles of modern dentistry on the subject of oral cleanliness. No cure-all propaganda or misleading exaggerations that run dead against professional aims and contradict professional teachings. By calling attention to this leaflet, you will save a lot of trouble in properly instructing your patients.

35 cents a tube

3-Tube Family Package
$1.00

Mer Dentifrice

Let us arrange with your druggist for stock in your neighborhood without any bother or obligation to you. His name only is required.

cleans effectively, yet there is no *ready-made* soap stock of any kind placed in it. It must and does contain soap. No tooth-paste can be an effective cleanser without it.

The soap in Mer Dentifrice is produced during the process of manufacture. Pure sodium hydroxide solution and virgin olive oil—*not peanut oil, cotton-seed oil, or olive oil foots*—are added individually in each batch in definite quantities and combine, forming pure, white, odorless, tasteless, alkali-free soap.

The best olive oil which you can purchase for your table is of exactly the same quality as used in Mer Dentifrice. Of course it is extremely expensive, and hence, is not used in other tooth-pastes.

Mer Dentifrice contains enough soap to be an effective cleanser—but it does not have that soapy, harsh taste so common to cheap tooth-paste. Purest olive oil saponified with chemical exactness is the reason.

PRESCRIBE

MER DENTIFRICE

Why Soap in Dentifrices?

An article entitled "The Question of Soap in Dentifrices" by Dr. Herman Brody in the *Dental Cosmos* of October, 1925, contains some decidedly modern and useful information on this subject which merits more than casual reading.

Conflicting statements for and against soap in a dentifrice have created confusion in the minds of dentists and the public. Perhaps newspaper and magazine advertising has been responsible for many erroneous notions.

Though a good deal of the advertising has presented the true facts regarding soap in dentifrices, some statements of this kind show a deplorable lack of knowledge on the question or even an apparent disregard of the facts. Dr. Brody has contributed a valuable article which ably presents the views of writers and research workers along with his own reflections based upon clinical observations.

Dr. Brody is not discouraged over the fact that teeth decay in spite of the most rigid prophylaxis in some cases. He believes that instead of waiting for the doubtful discovery of specifics for the prevention of tooth decay, it is better to urge the importance of mouth hygiene which, while not altogether effective in prevention of caries, will prevent caries in those places accessible to the toothbrush.

Though recognizing the rôle of acid producing bacteria as perhaps the most important factor in the production of caries, he does not consider strongly alkaline dentifrices or alkaline solutions effective in neutralizing the acids produced by bacterial metabolism. The conditions of their practical application do not provide sufficient contact with the preformed acids which remain untouched by even the most thorough applications of alkaline solutions.

He does not mention a most important point, however, which is, the destructive effect of strongly alkaline dentifrices on the mucous membranes.

Dr. Brody does not consider antiseptics or strong germicides of any value in dentifrices, but he is careful to include the qualification "for the sole purpose of preventing decay." This is evidently an expression of his revolt against the over-medicated dentifrices. Especially those which are urged upon the public as preventives of tooth decay, solely from the alleged germicidal activity.

However, without careful reading, one may reach the conclusion that antiseptics or germicides are useless in dentifrices, which is certainly not the fact. Germicides are useful in reducing the numbers and virulence of organisms. Even though the mouth cannot be completely sterilized, there is no objection to their use if they do not destroy tissue.

Cases of periodontoclasia are sometimes encountered in which no definite irritation is evident and in which there is present an apparently virulent infection. The application of suitable germicidal dentifrices in such cases is of undoubted benefit in reducing the numbers and resistance of the organisms.

Then again, germicidal dentifrices employed with vigorous brushing of the teeth, massaging and cleansing of the gums, tongue and cheeks, are undoubtedly useful in preventing the excessive multiplication of bacteria and their invasion of the oral tissues. Even though it is true that germicides may be of limited use in the prevention of caries, it must be remembered that this is not the only function of dentifrices.

There is, of course, an objection to the use of dentifrices containing germicides which are destructive instead of stimulating to the tissues.

Dr. Brody quotes certain publications which refute the claim that acid dentifrices increase the alkalinity, a flow of saliva or its ptyalin index, and that soap has a depressing effect. He concludes that the chief thing in the prevention of caries simmers down to the daily, thorough and systematic cleansing of the teeth by means of the toothbrush, dental floss, and a mild, purely neutral or slightly alkaline dentifrice.

"An agreeable flavor makes the cleansing of the teeth a pleasant procedure," and "many children and not a few adults can be induced to take better care of (*Continued on page 11*)

At Par with T. C. Alloy

Your Mer Dentifrice and Mercitan Lotion have both received a thorough trial and have met with high favor. I am of the opinion that the dentifrice is to others as Twentieth Century Alloy is to ordinary alloy. That's going some.

—*Coleraine, Minn.*

Congratulations in Order

Mer Dentifrice does leave the mouth very well satisfied with itself. I have not personally tried Mercitan Lotion but heard a member of my family say the other morning that she could see an improvement in the condition of her mouth in the short time she has been using it. I think you are to be congratulated on these products.—*Los Angeles, Cal.*

Recommends Mer Dentifrice

I am using Mer Dentifrice myself, personally, and also recommending it.—*Pennsylvania.*

Best Ever

I am using Mercitan Lotion and Mer Dentifrice and I like them very much. The Mer is the best I have ever used. Enclosed you will find a check for one dollar for three more tubes. Dentu-Creme is highly spoken of by my patients.

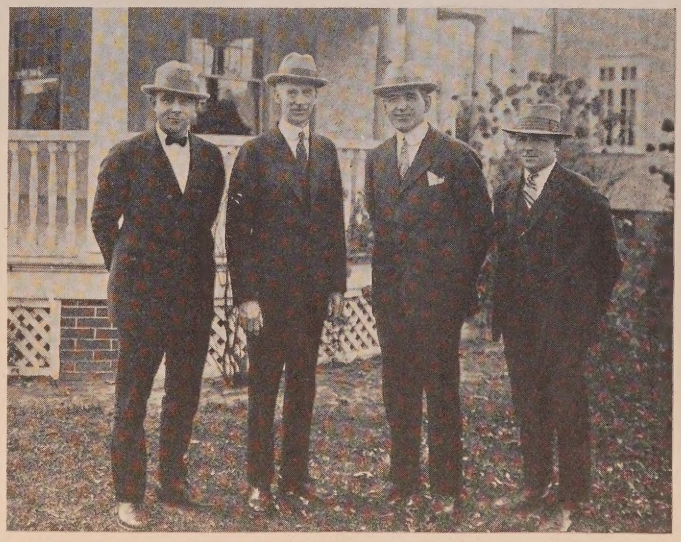
—*Minneapolis, Minn.*

Appeals to Taste

I have found any preparation for prophylaxis must be something that will appeal to the taste and smell of the patient, otherwise it is very easy for them to become lax. Your preparations meet these requirements, besides possessing the medicinal properties that give beneficial results. I passed on four small bottles of Mercitan Lotion to some of my best friend-patients and they have expressed their pleasure in the gratifying results. Mer Dentifrice also is a pleasure to use and gives very good results.

—*Albert Lea, Minn.*

Your Boy is Bound to Recognize These Men, Even if You Do Not



Connie Mack (second from left), veteran strategist of the baseball science, is keenly interested in the effect of oral infections on the playing abilities of his stars. Consequently, at the request of The Caulk Dental Research Institute he has sent several groups of his players to Milford for thorough dental examinations during the past year.

The latter part of November Mr. Mack accompanied by Bing Miller (on the left), Ira Thomas (third from left) and Jimmie Dykes (on the right) spent two days at the Clinic undergoing examination and treatment. The Boys of Milford were treading on thin air while these *idols* were in town.

Again ~ Those Thirty-four

The discussion of the report by that exponent of good amalgam work, Dr. Wm. R. Pond of Rutland, Vermont, is well worth repetition here.

"It is good to see that this great Society and some of its outstanding members are willing to investigate the use of amalgam as a filling material. There is a vast need for this sort of thing, for your members, like all other dentists, are, on an average, using amalgam many times more than they are using other metal fillings, and most of them want to know and need to know more about the subject. I congratulate Dr. Ottolengui on the start he has made, and hope he will carry his investigations further.

"If the report of the committee were a real scientific research, it would be presumptuous for us to disagree with any of its findings, but as it is only an investigation, possibly we are justified in making personal deductions.

"'The Failures with Amalgam as Commonly Used' is a very correct title, and the figures given by your committee are interesting and instructive. The more I study the figures and read the report, the more fully convinced I am that the failures recorded, and what successes are mentioned, are not peculiar to amalgam but would occur with any filling material used under like conditions. No filling material would stand up under the same abuses which amalgam receives, nor would any other material save teeth at all, if used in the same careless manner. Real research has produced good alloys, and no fault can be found with the accepted formulas which produce a filling material which is, in many respects, quite ideal. If this is accepted, the failures must be due to the manner in which the material is used. Most of us realize what dentists are doing with amalgam and the committee's reports of failures are not exaggerated, but we must not allow these failures to cause us to lose sight of the wonderful possibilities which amalgam possesses as a tooth saver and ideal filling. To my mind, the 10 per cent of fillings polished about represents the percentage of dentists who are conscientiously and skilfully using amalgam. I like the final note of optimism in Dr. Harrington's report and consider it most timely.

"I would like to take up for discussion some of Dr. Ottolengui's deductions. Most of them are, I think, correct but not peculiar to amalgam. His dogma states: 'In proportion as the filling approaches, reaches or dips below the gingival margin, is failure with amalgam invited.' This is not correct if we are to consider good operating. Any recurrent decay is not due to amalgam, but to faulty operative technique. ALL fillings are more difficult in approximal spaces. We might include buccal and lingual surfaces also. I am convinced that amalgam, due to its silver content, is tolerated by the gum tissues better than any other filling material. The matter of attrition and no recurrence of decay is true of any filling. The fractures at the edges of amalgam fillings are due principally to poor cavity preparation. 'The three essential facts brought out by this investigation' would apply to gold inlays or any other filling material.

"*First.* All fillings succeed best on occlusal surfaces. That is, success is more easily obtained because conditions are more favorable, less skill is required and a more immune area exists.

"*Second.* All fillings should be polished. This is not peculiar to amalgam and the only unusual thing about it is that few amalgam fillings are polished. This has nothing to do with giving amalgam a black eye; the operator should receive this.

"*Third.* Regarding the third point, it IS difficult to polish approximal amalgam fillings and retain contact but it can be done if one cares to take the pains. All approximal fillings are difficult and many fail. Amalgam skilfully used will compare favorably with the rest. We are too apt to compare a poor amalgam filling, poor in cavity preparation, poor in condensation, poor in finish, with a perfect gold inlay. There is no comparison. I may add that all inlays are not perfect, but when they are, they are ideal.

"Dr. Ottolengui speaks of amalgam as a cheap filling. It certainly is in a large proportion of his reported cases. I personally think that the point of view of a large majority of dentists is mostly to blame. They think of amalgam as a cheap filling; they put the fillings in that way and impress their patients with the same ideas. If they were better paid for their amalgam work they might put in better fillings, and if they put in better fillings they might be better paid. Much of it is lack of proper mental and professional point of view.

"Dr. Ottolengui's 'technique necessary for success' is most painstaking and thorough and should bring success, but to the gold inlay instead of the amalgam restoration. Who would submit to it more than once, or what operator would undertake it a second time? Two or three appointments would do as well as the five. Does he know that separation can be obtained by heavy condensation in packing or that the separation can be maintained by tying the silk again after the fillings are inserted, finishing at the second or third sitting, as the case may be? This is most ideal, but sounds like an editor's technique. There are countless millions of carious teeth to be filled, especially among children, and amalgam is their only hope. Let us think of the other 90 percent and develop an easier technique for both patient and operator.

"Like Dr. Harrington, I think inattention to some of the fundamentals should not discredit the material itself. In twenty-five years of trying to put in good amalgam fillings, I have watched the growing interest in developing a better technique and the development of better alloys. The young men coming into the profession are being taught better methods. I can vouch for this from ten years'

Pieces of "Silver"

(*Continued from page 3*)

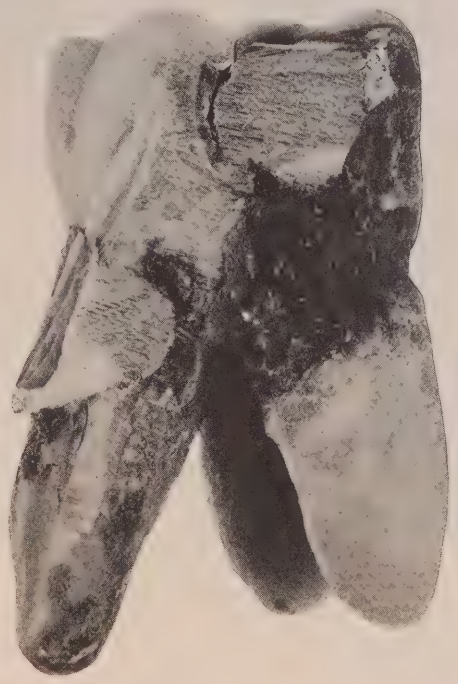
service on my State Examining Board. Amalgam is a wonderful filling material and, if taken seriously and used skilfully and conscientiously, will prove a great boon to mankind and will take its proper place as the most universal filling material we possess."

Dr. John T. Hanks, of New York City, in his discussion further puts the blame for poor amalgam work where it belongs:—

"The Research Committee has done a very commendable thing in bringing the subject of amalgam fillings to our attention. This is a topic which has been long neglected, with the result that less and less attention has been given to this widely used material.

"The fact that they are bringing to our notice the failures will stimulate many of us to adopt a better technique. Our reason for failure is that many of us have been content to follow the line of least resistance and to continue the methods in vogue years ago. Another reason that amalgam fillings have failed is that many dentists seem to be ashamed to acknowledge that they use this material at all. They will make, or have made for them, handsome gold inlays, but when it comes to inserting amalgam fillings they seem to think that any old way will suffice. Carelessness is the principal cause of failure. A careless operator leaves decay in the cavity and under overhanging enamel walls. He does not apply a matrix in approximal cavities, mixes the amalgam too short a time, packs it hurriedly and without sufficient force, leaving voids and uncombined masses of mercury. He does not adapt amalgam to the walls of the cavity so as to produce a tight filling. Not using a matrix, his filling is forced into the septal tissue. He also does no carving or polishing. How can we expect this kind of technique to even approach success?

"In these discussions we should not endeavor to compare the relative value of the gold inlay with amalagm fillings; as a matter of fact, there can be no basis for comparison of the two methods. Each material should be selected for the service which it can best be expected to perform. I am not urging the substitution of amalgam fillings in place of gold inlays; I am only urging a better type of amalgam filling, a better technique for amalgam work.



And this can be accomplished by the observance of a very few, but important, points in the development of our technique.

"Amalgam fillings are undoubtedly the most widely used form of dental restorations. Now, if we admit that a large number fail, may we not, by improving the technique of the operator, increase the number of successes? The Committee has found that the fillings which were polished presented the most successful cases. May this not be explained by the fact that polishing a filling indicates that it was done by a man who was careful and delighted in doing a finished piece of work? Such a man would perform each step in the right way, so that each link would tend to produce a perfect chain. May not the apparent recurrent decay be a continuing decay? That is, the decay was never removed from the cavity; the filling was placed on it and the decay, not being disturbed, was going on just the same.

"I believe that many operators who adhere to former methods are making amalgam fillings which are doomed to failure, or are at least only half successes, believing that they are doing their work in the best possible way. I further believe that many students are receiving today wrong instruction. They are still being taught methods in vogue in the time of Flagg.

"Too great stress has been laid on the properties of alloys and amalgams as demonstrated by scientific tests in the laboratory and not enough stress on the manipulation of the same amalgam by the dentist. Let us suppose that a manufacturer produces an alloy meeting all the tests as laid down by the Bureau of Standards. If this alloy is amalgamated and inserted in the wrong way, it will be a failure, due to no fault of the alloy but to the faulty technique of the dentist.

"The manufacturers of high silver content alloys of the present day have given us a good filling material, when it is handled in the right way. But this is not the way we formerly handled old style, low silver content alloys.

"The Committee calls attention to the fact that amalgam fillings do not retain a polish and that the surface becomes roughened. This may be explained as due to insufficient mixing of the amalgam. The particles of alloy are not thoroughly triturated to effect the perfect amalgamation which is so desirable, and are flaked out of the surface of the fillings. Or possibly there is too much mercury allowed to remain in the finished filling. One of the most important steps in amalgam technique is this one of sufficient trituration. At least three minutes should be allowed for this procedure, the mass being thoroughly rubbed in a deep mortar. This will produce a smooth, easily worked mass of amalgam.

"The proportions of alloy and mercury to be used vary with the different kinds of alloy. Eight parts of mercury to five of alloy is an average working ratio. The use of scales or gages will always give the right proportions and will be found to be a help toward economy of materials. Everything should be in readiness to pack the amalgam in the cavity, as the best alloys are medium to quicksetting, allowing only a comparatively short time for this process. The amalgam, on being removed from the mortar, will be found to be of almost a fluid consistency. In this state it is easy to adapt it to the walls of the cavity and, by condensing, bring the mercury to the surface where it can be removed. Successive layers are tamped and condensed until the cavity is overfull. The remaining pieces of amalgam may then be wrung dry, placed on the filling and malleted to place, bringing any remaining mercury up to or above the edges

(*Continued on page 10*)

Claims and more Claims

are being constantly made by tooth-paste makers for their individual brands—but do you know of a single tooth-paste which is recommended to clean artificial dentures? ¶ It can not be that the demand is a negligible quantity. Too many thousands of dentures are being worn to admit of that reason. ¶ Undoubtedly, many, if not all, of the paste makers have investigated this field. New ideas and new purposes create new sales where competition is keen. ¶ Isn't it only reasonable, therefore, to believe that each one found Dentu-Creme to be the only preparation which perfectly cleans artificial dentures?

But new denture patients are likely to employ the same tooth-paste which they formerly used on their natural teeth even though it is unsatisfactory for perfectly cleaning dentures. Your advice would be invaluable to them on this one point.

50c per tube

Nothing Else

can clean and sanitate a denture so quickly and harmlessly.

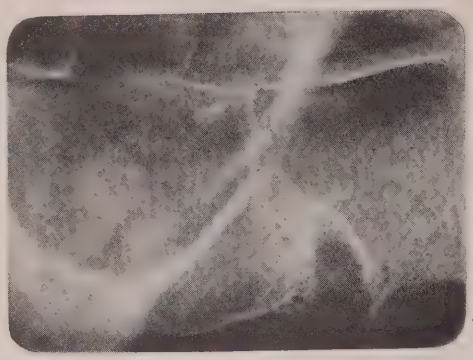
Dentu-Creme gets rid of all accumulations, rough tartar and odors, leaving the denture perfectly clean, smooth, sanitary and comfortable.

Prescribe

DENTU-CREME

A BOOKLET entitled "*Comfortable Dentures*" sums up in plain language all the good advice you would like to give denture patients. How many copies can you use—*free of charge?*

"Hide and Seek" in the Antrum of Highmore



Radiogram No. 1

HAVE you ever had a root which you were attempting to extract slip mysteriously out of sight, and then play hide and seek with you—it hiding in the antrum, and you seeking it with every bit of ingenuity and skill which you could muster?

If you have had to perform such an operation, then you will undoubtedly agree that it is not a pleasurable pastime.

On September 3, 1925, a root was removed at the Caulk Clinic by a simple method which may offer a valuable suggestion to you.

The patient was referred by a dentist, with the statement that a molar root, which he was attempting to remove, had mysteriously disappeared. Radiogram 1 taken immediately shows the root in the distal of the antrum. The socket is also quite plainly shown.

The patient had been in an erect position since the accident occurred and therefore the root was lying on the floor of the antrum.

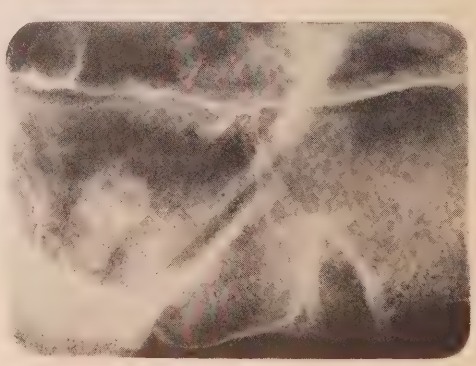
From carefully studying the radiogram there appeared to be a possibility that the root could be washed out. A pair of very fine bayonet bone forceps was employed to enlarge the opening to about one centimeter in diameter. The patient's head was adjusted so that the opening was at the lowest part of the antrum. Then a solution of one part Mercitan Lotion, three parts warm water and a little salt (to make the solution isotonic) was flushed through the opening.

Radiogram 2 shows that this procedure did not change the location of the root to any degree.

The patient's head was shaken vigorously backward and forward several times. It was thought that this vigorous shaking would dislodge the root from its position and probably would force it closer to the socket.

An examination with a probe through the opening located the root. It was then quickly removed by using a pair of curved long-nosed pliers. The solution of Mercitan Lotion, warm water and salt, which had been previously used, was again flushed into the antrum. The opening quickly filled with a blood clot.

Prior to the extraction of his teeth, the patient had had a denture made and consequently when it was placed in the mouth the opening was protected. No post-operative treatment was required.



Radiogram No. 2
Shows no change in location of root

Mercitan Case No. 466

THE first photograph, taken on August 5, 1924, does not effectively show the severity of this case of pyorrhea.

The tissues of the mouth were so inflamed that wiping them with cotton caused profuse bleeding. The lips and tongue were quite noticeably swollen. The breath was offensively foul. The gum tissue was in a low state of tonicity.

Examination showed serumal calculus, with but little salivary calculus. There were several deep pockets and a hypertrophied condition of the gum in the interproximal spaces.

The patient stated that this condition had been gradually progressing for about three years, but had been decidedly aggravated during the past three weeks.

On August 7, 1924, treatment was commenced. Five smears were taken from different locations in the mouth, and a culture was taken from the labial pocket of the upper right central.

The teeth and roots were scaled superficially. The pockets were touched up lightly with mild Mercitan Fluid.

Before dismissal the patient was instructed to effectively and consistently carry on the following home treatment:

Massage the gum with Mer Dentifrice, forcing the paste into the spaces between the teeth. Thoroughly scrub the teeth with a tooth brush, using Mer Dentifrice. Vigorously massage the gum with the Indexo Finger Brush, using Mercitan Lotion, full strength.

This home treatment must be done at least three times each day and particularly before retiring for the night.

The patient returned on August 12, five days later. At this visit five smears from different parts of the mouth were again taken. A more thorough scaling and polishing of the teeth were carried on. Mild Mercitan Fluid was applied in the deep pockets, using the Mercitan Tampons. Mild Mercitan Cream was packed in the shallow pockets. Then a poultice of Mild Mercitan Cream was applied to the gum tissue for five minutes. At the expiration of this period the poultice was removed and the excess Cream was wiped off. The patient was dismissed for one week.

On August 19, 1924, five smears were again taken from different parts of the mouth. The hypertrophied tissue between the lower cuspid and lateral on each side was surgically removed. Applied Strong Mercitan Fluid to deep pockets and Strong Mercitan Cream to the remaining shallow pockets. The patient was dismissed for another week.

On August 26, five smears were again taken from different parts of the mouth. The swelling of the lips and tongue, observed when the patient first presented for treatment, was completely gone. The patient's breath was not nearly so offensive. A treatment of Mild Mercitan Cream was applied to the entire mouth.

On September 2, four smears were taken. The hypertrophied tissue between the upper cuspid and lateral on the left side and the upper central and lateral on the right were surgically removed. The tonicity of the tissues had been greatly improved. Patient reported that the gum did not bleed so readily and hence she was able to use the tooth brush with very little inconvenience. A treatment of Mild Mercitan Cream was applied. (*Continued on page 10*)

THE PHARMACOLOGY OF Mercitan

Mercitan Fluid

1. Chemically removes necrotic tissue.
2. Stimulates normal cell tissue.
3. Germicidal.
4. Astringent. Contracts tissue.
3. Antizymotic. Inhibits fermentative processes.
4. Styptic. Arrests hemorrhage.
5. Astringent. Diminishes secretion and transudation.
6. Sorbefacient. Promotes absorption.
7. Deodorant. Eliminates pyorrhea breath.
8. Analgesic. Relieves pain.
9. Non-toxic to cell tissue.

Mercitan Cream

1. Germicide-disinfectant. Kills germs and sterilizes.
2. Paraciticide. Kills animal and vegetable parasites.

Again, Those Thirty-four Pieces of "Silver"

(*Continued from page 7*)

of the cavity. It will now be found that the filling is hard enough to be carved and lightly burnished, leaving the polishing for a future sitting.

"I cannot agree with the technique, as outlined by the Committee, which is said to produce the best results. The wide and long continued separation would produce a degree of trauma having far-reaching results. The less separation done to adult teeth the better.

"The Committee is to be congratulated on the selection of a subject for investigation. More work along these very practical lines and less of so-called research work will be highly beneficial to the entire profession. The Committee suggests an investigation of the degrading ready-made gold crown. From some of the gold inlays I have observed, an investigation as to how these are commonly used would be profitable.

"But, after all, these operations finally are based on the personal skill of the operator more than on the material used.

"Take two men, for example; put them in the same office, give them the same wax, investment material, gold and casting apparatus, and one will produce a fine well-fitting inlay and the other will produce an island of gold in a sea of cement. The same thing applies to amalgam, the poor operator produces a poor result always.

"There is an old English proverb which says, 'A good archer is not known by his arrows but by his aim.'"

There is perhaps only one important point that the dentist should not overlook. While the operative faults disclosed by the Committee are clearly due to faulty work, yet there is still in use a good deal of inferior dental alloy. Therefore, it is not out of place to urge upon the dentist the use of high-grade alloy and mercury, coupled with correct operative procedure and a fee commensurate with the quality of the restoration. The patient will be glad to pay more if the consequences of poor amalgam work are explained.

Eutone
for OSOGENATION

EUTONE is a special preparation containing eucalyptol, menthol, chloretone and thymol. Its principal purpose is to prevent post-operative pain caused by too vigorous instrumentation in the pulp canal. It does not chemically react with Osogen Fluid; does not interfere with the setting of plastic Osogen; is non-irritating, non-escharotic, and acts as a mild anaesthetic.

It is especially valuable in the following cases:

1. Where there is a rarified area it is good practice to force a small amount of Eutone beyond the apex just before placing the plastic Osogen. This technique is especially effective in cases which are purposely filled to slight excess with Osogen.
2. Frequently in acute cases considerable pus flows on opening into the canal. These cases are usually associated with pain over a considerable area. Absorb exudate from upper portion of canal. Saturate loosely packed cotton with Eutone. Place in the cavity and dismiss the patient from one to two days. At the expiration of this period the tooth will generally be comfortable.
3. In cases of marked pericementitis the tooth will be sore to percussion, and the surrounding tissue greatly inflamed. Seal in a dressing of Eutone. Allow it to remain from one to two days until the inflammation and soreness have subsided.
4. If a patient presents with an aching tooth which is partly putrescent, remove decay and clean out the putrefactive debris from the pulp chamber. Seal in a dressing of Eutone from one to two days.

Mercitan Case 466

(*Continued from page 9*)

Upon her return on September 9, a week later, it was noticed that there had not been a great deal of improvement. It was found, upon questioning the patient, that she had neglected her home treatment. She was warned that unless she carried on her part of the treatment, satisfactory results could not be expected to follow. A treatment of Strong Mercitan Cream was applied in all pockets. The roots of a decayed molar were removed.

On September 17 it was readily observed that a most pleasing improvement had taken place. The tissues were returning to normal color and were becoming more firm. At this sitting all of the pockets were treated with Mild Mercitan Cream.

The second and last photograph was taken on September 24. Gum tissue hard, firm and normal in color. All serumal and salivary calculi removed. No evidence of pus, blood or exudate. Breath normal.

Patient reported improvement in digestion and general health. She was dismissed with instructions to continue home treatment and report in three months.

Report of Bacteriological Examination of Case No. 466

August 7, 1924. Smears from upper anterior, lower anterior, upper right, upper and lower left posterior teeth were examined microscopically. In each instance there were found excessive numbers of fuso-spirillary organisms, together with numerous rods and cocci-streptococci predominating. There were many leucocytes and red blood cells in each microscopic field examined.

Pus taken from the labial pocket of the upper right central was cultured in dextrose brain broth. There developed a mixed culture in which streptococci predominated.

August 12. Smears taken from same localities as on August 7. Microscopic examination showed a slight reduction in the number of fuso-spirillary organisms and pus cells present.

Subsequent smears were examined on August 19, August 26, and September 2. In each instance the microscopic findings showed improvement over that of each preceding date. However there were still present considerable numbers of the fuso-spirillary organisms, together with some leucocytes.

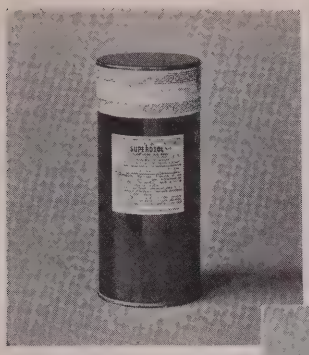
September 24. On this date the patient returned for her last visit. Smears were taken from the five regions mentioned in the first paragraph. Microscopic examination failed to reveal the presence of pus cells and only a few scattered spirochetes. Fusiform bacilli were found in each microscopic field. The usual mouth organisms—cocci, rods, etc.—were present in normal quantities.

The Convenience of It

EVEN though you may have an effective formula for a soldering fluid, by the time you purchase the ingredients individually and then have the bother and loss of valuable time in mixing, the production cost is comparatively out of sight.

For your convenience, therefore, purchase Caulk Soldering Fluid at 50 cents per bottle. One bottle will last for months. Also you can be positive that it is safe. It is quickly and easily applied. Its protective film keeps the gold clean under the most severe soldering heat.

Order Caulk Soldering Fluid from your dealer



Photograph 1286-C.
The tin can in which is contained a ¼-lb. bottle of Superoxol.

Photograph 1286-D.
Dump out the packing powder. It acts as an absorbent safeguard in case the bottle should break in transit.

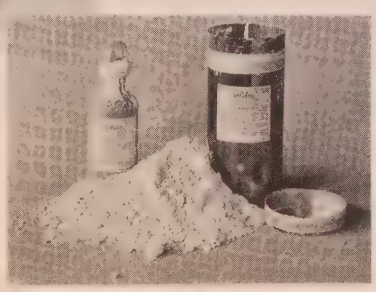
Superoxol is a Liquid—Not a Powder

The Superoxol mentioned on page 22 of the Supplement Edition Osogenation booklet is a liquid and not a powder. From letters which have been received here it is quite evident that some dentists are confusing the packing powder around the bottle of Superoxol with the preparation itself.

The packing powder is merely an absorbent safeguard in the event the bottle should break in transit. This protection is essential since the Superoxol is quite caustic.

One dentist wrote that he had used this powder twenty-five times without success in bleaching. Therefore, to prevent a like misunderstanding with other dentists we are reprinting herewith photographs of the container, packing powder, and bottle of Superoxol.

Photograph 1286-B.
Remove bottle from can.



Photograph 1286-A.
The empty tin can, packing powder and bottle of Superoxol.

Why Soap in Dentifrices? (*Continued from page 5*)

their teeth if a pleasant tasting oral preparation is used."

"All good dentifrices should contain soap," says Dr. Brody. It dissolves the fatty substances without attacking the teeth. Furthermore it lubricates the bristles of the toothbrush, allowing them to penetrate into the interproximal spaces more easily. He quotes a number of writers regarding the amount of soap which a good dentifrice should contain, and shows that an amount all the way from 2 to 30 per cent is advocated.

Dr. Brody concludes that "a good oral preparation should contain about 10 per cent but not over 15 per cent of soap, and while the very best grade of white castile soap is preferable, any high-grade vegetable soap, such as coconut oil soap, may be used." Though a difference of opinion is expressed as to the permissible quantity of soap, it is notable that no attention is given to the *quality of the soap. Quality* is decidedly more important than *quantity*.

It is obvious that a dentifrice may with great advantage contain 20 to 25 per cent of soap if it is a neutral soap prepared by careful saponification of pure edible olive oil with sodium hydroxide. Whereas a smaller quantity of soap made from olive oil foots and excessively alkaline would be irritating and have too great a solvent or macerating action on the mucous linings of the oral cavity.

It is strange that most dental writers have neglected the importance of quality of soap and have therefore been inclined to limit the quantity to even ineffective concentration for the proper cleansing action. Other vegetable oils, like coconut oil, are contraindicated because they produce too much suds and are apt to be excessively alkaline. Coconut oil is used to produce suds in shaving soaps, but in dentifrices we want the maximum detergent action with a minimum of suds and alkalinity.

We have detailed specifications for the quality and purity of toilet soaps, soap powder, and laundry soaps, but the lamentable thing is that we do not have any specifications for the quality of soap which enters a dentifrice and is used on the delicate mucous membranes of the mouth!

They Outwear Two or Three Other Points and They Are Snow White

The first practical trial of Caulk Alpine Points will decisively prove to you that they will grind much more smoothly and evenly and at the same time outwear any other abrasive point on the market. ¶The only finishing point *hard* enough, *fine* enough, and *white* enough for quick, smooth immaculate finishing of the hardest of all filling materials—de Trey's Synthetic Porcelain—is the snow-white point in the box with the *blue* label. ¶Twelve popular shapes are made mounted on mandrels. Your dealer can send you for examination an assortment either for chuck hand-pieces or right angles. ¶Another kind of Alpine Point, called "Abrasive" comes in *yellow* label boxes containing an assortment of twelve shapes also mounted on mandrels. These are coarser than the finishing points. Hence they are used for heavier cutting, either of tooth structure or to remove bulk excess from Synthetic Porcelain restorations.

Alpine Finishing Points—$2.50 *per dozen*
Alpine Abrasive Points—$2.00 *per dozen*

Any assortment desired can be supplied by your dealer

The 12-50 Mercitan Lotion Outfit

For $12.00, the regular retail price of twelve eight-ounce bottles of Mercitan Lotion, you also receive fifty two-ounce bottles for dispensing. The border design around this page contains exactly fifty bottles. Had you considered just how large a quantity this number makes?

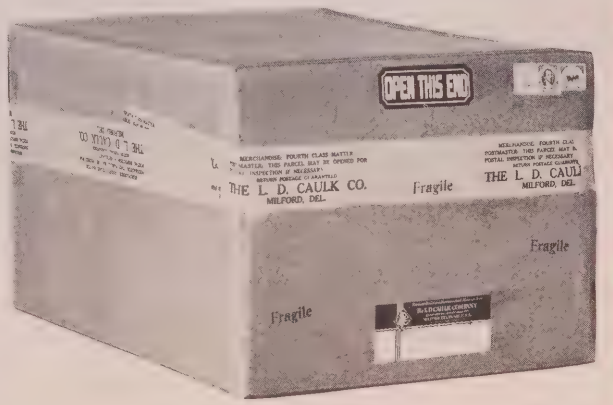
Then, too, each small bottle contains two ounces of Lotion in concentrated strength. When diluted according to your instructions the quantity is doubled or trebled.

This 12-50 Outfit is the *economical* way to purchase Mercitan Lotion because of the fifty dispensing bottles which you receive without extra charge.

If desired, a special ℞ label will be printed for you, bearing your name on each of the fifty bottles. In that case order the Outfit from Milford. There is no extra charge for the special labeling.

Generally, though, it is found most convenient and effective to use the blank ℞ label shown on the bottles in the border. You can easily write your instructions to the patient on this label.

Order the 12-50 Outfit (blank ℞ label) from your regular dealer



Here is the way the 12-50 Mercitan Lotion Outfit looks when it arrives in your office

The carton is packed and *sealed* in Milford and is not opened again by your dealer until it reaches you

Make Synthetic Porcelain Restorations Permanent

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CANADIAN EDITION

MILFORD NEWS

NUMBER
53

Dental Edition
70,000

Photo © by Anne Shriber

ALSO IN THIS ISSUE:

A Message to Those Who Have Purchased Osogen Outfits

MILFORD NEWS IS THREE YEARS OLD

A Message

TO THOSE WHO HAVE PURCHASED OSOGEN OUTFITS

YOU may be certain that it has indeed been a great pleasure to me to read the multitude of letters which many of you have so kindly written in reporting your individual progresses with Osogen. I have been in constant touch with the trend of professional thought in the adoption of this new method. Each letter received from you has passed over my desk before being referred to the proper department of our organization for attention.

In this manner, and no other, could I be accurately informed regarding the true situation as it is.

I have become greatly enthusiastic over the truly remarkable success of Osogen with most of you as evidenced by your letters. It is quite apparent to me that the research work which was carried on in the development of Osogen was entirely practicable in every respect. Otherwise the resulting method would have been fine in theory but hopelessly impracticable in actual practice.

Of course all of your letters have not been wholly satisfactory from our point of view. Any one actually understanding the circumstances could not possibly expect them to be. You are employing a new method for root-canal therapy whose operative procedure is quite different from any other with which you were already acquainted.

Consequently operative difficulties have been encountered by some in first learning the details of the standardized technique. It has been most gratifying to me, however, to discover in your letters reporting these difficulties a generous spirit of reasonableness, and even an eagerness to definitely learn wherein you may have erred in following our recommendations.

This decidedly friendly co-operation on your part has not been overlooked. And in return we have been pleased to serve you in every conceivable way.

There are but three principal difficulties in Osogenation—post-operative pain, discoloration and disintegration. To be sure, each one is of grave importance to you. If uncontrollable, then you would find it necessary to discontinue the use of Osogen in your practice.

There can be no question, however, but that these three difficulties, and all others which may spring up, can be definitely prevented by observing certain specific factors. The exhaustive clinical investigation on Osogen which has been carried on continuously for the past six years without interruption has blazed a trail ahead for you.

To be correctly informed, therefore, about any doubtful point you need only to briefly state your case in a letter addressed to the CAULK DENTAL RESEARCH INSTITUTE. I shall guarantee unreservedly that a wholly satisfactory explanation will go forward promptly to you.

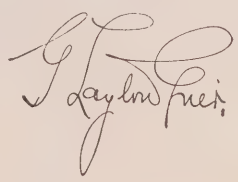
The staff of our research department has contributed several articles on the pulpless tooth problem to the MILFORD NEWS for many issues past. I have personally received, from many of the learned dental investigators throughout the country, letters complimenting us upon the high character of these discussions. It is interesting to learn that these men who have long been associated with dental problems consider the scientific facts developed in our research department to be of paramount value in modern dentistry.

If I may send any copies of the last issues of MILFORD NEWS in which are contained these articles, it would indeed be a great pleasure for me to serve you.

As you have undoubtedly found by this time Osogen is notable in possessing not only *all* the properties demanded by dental authorities for the ideal filling, but also a number of other invaluable properties never thought of prior to the CAULK research.

It combines in one method a complete treatment which is definitely superior to any other single method or the *combination* of all known methods.

Osogenation is changing the entire aspect of pulp-canal therapy not only from a medical point of view but from the business side of dentistry as well. In short, it offers a means for expanding that limited kind of dentistry which merely places restorations above the gum line into the real dentistry of today and tomorrow—the complete dentistry that saves the *whole* tooth, from the apex to the crown.



PRESIDENT: THE L. D. CAULK COMPANY

Make Synthetic Porcelain Restorations Permanent

THE permanence or endurance of a Synthetic Porcelain restoration in the mouth may be almost anything in point of time that the operator chooses to make it. Why are some restorations of Synthetic Porcelain still beautiful and perfect after ten years' service, while others show erosion, discoloration, disintegration, chipping, and breakage, after a comparatively short existence—say a year or three years?

A number of reasons for this difference in results may suggest themselves to the operator. Is it a variation in quality of material? Does Synthetic Porcelain deteriorate with age? Does the operator, who sees many translucent fillings which have been inserted by other dentists, draw the conclusion that these fillings are all Synthetic Porcelain, not considering the many different silicates that have been put on the market?

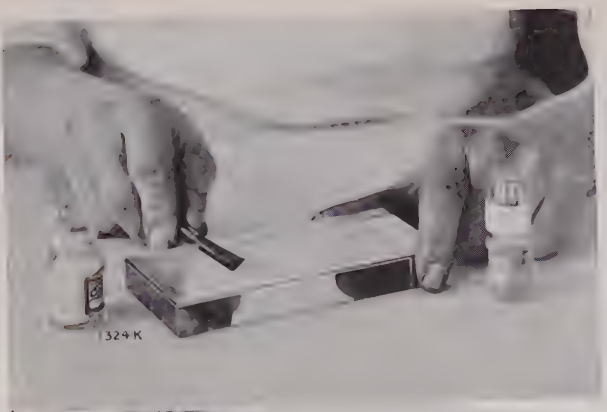
How many operators appreciate the fact that most failures are owing to two fundamental causes—either the use of inferior material, or lack of proper workmanship based upon the specific chemical and physical properties of the particular material used?

In making his choice among the number of materials available, the operator can be scientifically certain that no other translucent filling material in existence has the strength, hardness, translucency, purity of shade, and other physical and chemical properties possessed by Synthetic Porcelain. The first element in success is, therefore, to use genuine Synthetic Porcelain, for which there is no substitute.

On the question of uniformity in quality, Synthetic Porcelain again merits the operator's confidence because both its powder and the liquid are standardized in each batch by accurate physical tests which assure a fixed crushing strength, rate of hardening, setting time, and proportion of powder and liquid required for a mix of standard consistency.

Synthetic Porcelain powder or liquid does not deteriorate with age; no matter how old the powder or liquid is, its quality cannot change. If the powder is kept stoppered to prevent evaporation and contamination by dust and dirt, nothing can injure its quality. The liquid will not change if properly taken care of.

(*Continued on page 5*)



1

Spatula should be held at right angles to the slab during mixing—end of slab grasped firmly with other hand. The mixing arm and hand move with ease, precision and comfort.

2

Place powder on slab previously cleansed with alcohol and dried.

3

Place liquid on other end of slab. Immediately replace dropper and cap liquid bottle.

4

Divide the powder. Add one-half the amount of powder necessary for the mix to the liquid.

5

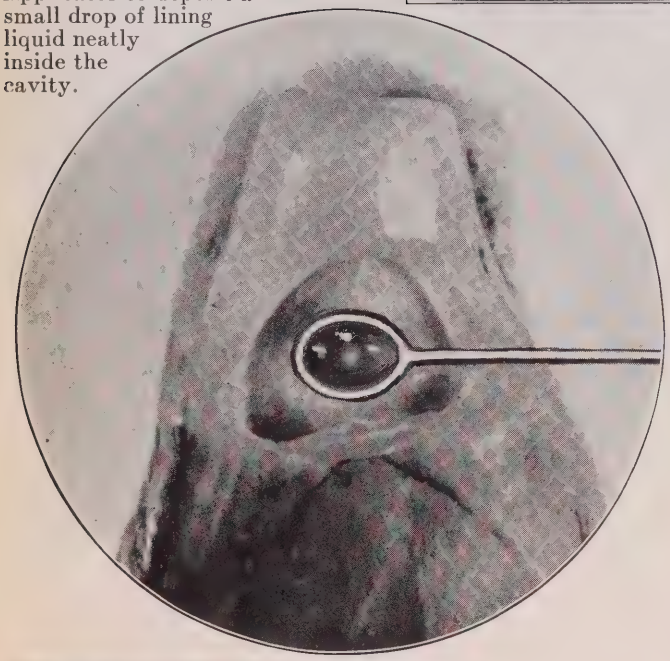
Incorporate the powder in the liquid with a rapid circular motion.

1.
First dry cavity with warm air.

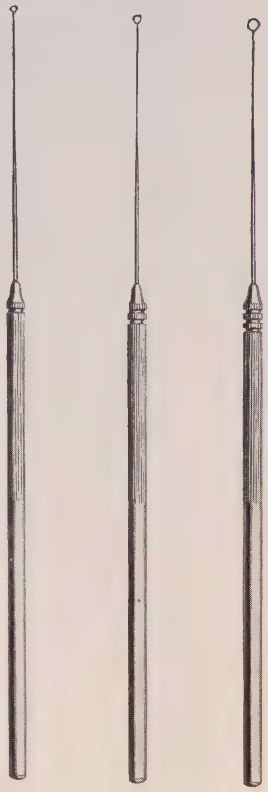
How to Apply REPELAC

2.
Do not bother with cotton for application of Repelac. Cotton smears the cavity.

3.
Use the new Repelac Applicator to deposit a small drop of lining liquid neatly inside the cavity.



4.
Dry the Repelac with air slightly warm (*Not Cold*). Then freshly chisel the enamel walls so that the filling may rest on surgically *clean* margins.



Caulk Repelac Applicators

Three sizes are packed in a box. The price is 50 cents for the box complete.

ASK FOR CAULK
REPELAC APPLICATORS

THE most economical way to buy Repelac is in this combination package—two bottles of Repelac and one bottle of Solvent, at the special combination price of $1.50.

Single bottles also can be obtained from any dental supply dealer at 60c each.

The old name of this material was Caulk Cavity Lining. That name did not cover the *many* uses.

The new name "Repelac" is easier to remember, shorter to say. The U. S. Patent Office Registration will protect against any possible infringement.

Under the new name you can always be sure of getting the genuine Caulk "liquid cellulose"—acid-proof, non-shrinking, impervious.

Resin varnishes and gum solutions are not substitutes for Repelac.

The Solvent is used to thin the Repelac when desired. Also to dissolve Repelac which has been painted on a tooth or gums, and to cement celluloid, as when the size of a crown form needs alteration.

Make Synthetic Porcelain Restorations Permanent

(*Continued from page 3*)

Therefore, since Synthetic Porcelain is a material of standardized quality, it follows that the variations observed in practical results are the result of variation in technique.

In considering the details of this technique which is recommended to be consistently followed, first note the indispensable accessories included in each Synthetic Cabinet; and particularly, how efficient this cabinet is from the standpoint of convenience and genuine necessity. It holds the complete outfit required for making Synthetic Porcelain restorations—a specific place for each item. The entire equipment is always ready, therefore, for instant use avoiding expensive delays.

Then, too, if the powder and liquid are kept in a drawer or compartment of your cabinet with drugs and chemicals, such as iodine and iodoform, they will immediately become contaminated and unfit for use. Consequently, if for no other reason the Synthetic Porcelain Cabinet is invaluable to you for keeping the powder and liquid intact.

The indispensable accessories are: Stellite Instruments for placing, Stellite Spatula for mixing, Celluloid Strips, Cocoa Butter, Repelac for lining cavities, Glass Slab, Shade Guide and Crown Forms.

It is extremely important that the greatest posisble care be taken in the manipulation of these accessories. To avoid contamination with other products, the instruments used in contact with Synthetic Porcelain should be reserved exclusively for it.

This rule applies particularly to the glass slab and Stellite spatula which must be absolutely clean before commencing to make the mix.

The temperature of the slab has a great deal to do with success, since heat accelerates and cold retards the setting. If it is too cool, there is danger of mixing an excessive quantity of powder with the liquid. On the other hand, if the slab is too warm then an insufficient quantity of powder will be incorporated in the mix.

For best results in mixing Synthetic Porcelain, the temperature of the slab should be between 65° and 75°—a rather wide temperature range. In cooling the slab take care not to chill it below the dew-point so that moisture will not condense on its surface. Under no circumstances should Synthetic Porcelain be mixed on a moist slab.

Even after the slab has been washed and dried carefully, apply alcohol to remove any grease, dust, etc., which may

(*Continued on page 9*)

6

Add the second portion of powder (a smaller one) to the mix.

7

Mix gathered upon spatula and "rolled off" again to test for consistency.

8

Mix is too thin.

9

Add another small portion of powder to the mix.

10

Mopping-up just previously to the final strokes of spatulation in order to incorporate all free particles of powder.

MILFOR
IS THREE

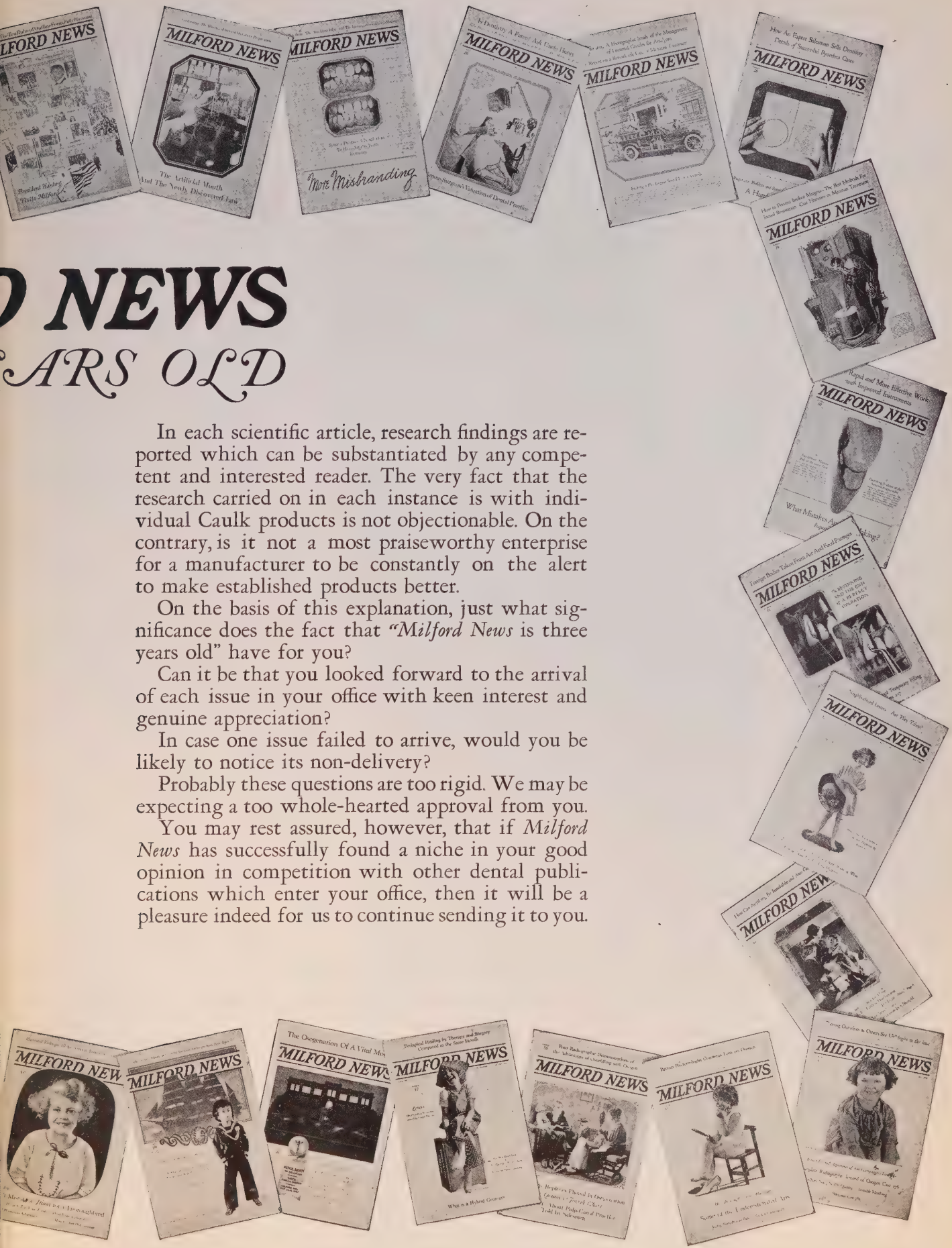
How many front covers do you recognize? This suggestion is not a test of your memory Such a result could have but a temporary interest for us.

What we have in mind is of far greater significance. If you do recall many of the covers, then you have probably been sufficiently impressed with the practicable value of *Milford News* to give each issue a thorough and complete reading.

You may be interested to know the plan upon which *Milford News* is edited. Of course since its publisher is a commercial firm the publication must in some measure contribute directly to the sales volume of the products manufactured. Consequently practically all of the space is devoted to facts relating to these products.

There is no real reason why this policy should be disguised. It must be immediately obvious to you in considering the editorial policy.

At the same time however sixty per cent of each issue of *Milford News* is given to practicable information contributed by the staff of the Caulk Dental Research Institute and but forty per cent is advertising.



D NEWS
EARS OLD

In each scientific article, research findings are reported which can be substantiated by any competent and interested reader. The very fact that the research carried on in each instance is with individual Caulk products is not objectionable. On the contrary, is it not a most praiseworthy enterprise for a manufacturer to be constantly on the alert to make established products better.

On the basis of this explanation, just what significance does the fact that *"Milford News* is three years old" have for you?

Can it be that you looked forward to the arrival of each issue in your office with keen interest and genuine appreciation?

In case one issue failed to arrive, would you be likely to notice its non-delivery?

Probably these questions are too rigid. We may be expecting a too whole-hearted approval from you.

You may rest assured, however, that if *Milford News* has successfully found a niche in your good opinion in competition with other dental publications which enter your office, then it will be a pleasure indeed for us to continue sending it to you.

BUYING tooth-paste by the single tube is an annoying process to say the least. You are almost always out. And unless some other member of the family remembers to buy another tube for you at the last minute, you are forced to either borrow or rob.

To relieve your memory, buy the 3-tube package of Mer Dentifrice for $1.00. It saves money and bother.

IN addition to the high-grade quality soap which is contained in Mer Dentifrice there is another ingredient which forces the paste to *stay* on the job until the heavy grease and mucin deposits are removed.

In this manner it does its most effective cleansing and polishing in the interdental spaces.

Other pastes vanish in watery suds and bubbles even before the brushing begins.

At the same time that Mer Dentifrice is cleansing the tooth surfaces so effectively there is no irritation to the gum nor harmful action on tooth structure, either mechanical or chemical.

Prescribe

Mer Dentifrice

All necessary arrangements for stock with druggists can be made without any bother or obligation to you

Simply give us his name

Prefers and Recommends

I use Mer Dentifrice in preference to any other dentifrice on the market. I also recommend it to all my patients. With new patients I give them a demonstration with Mer Dentifrice and toothbrush. I find that when people actually see the way to clean their teeth it makes a stronger impression than describing the process. I have used Mercitan Lotion in connection with my treatment of periodontia and patients are very favorable to it.—*Toronto.*

Right Kind of Co-operation

Received your Mer Dentifrice and Mercitan Lotion sometime ago. Immediately gave it to one of my pyorrhea patients whom I had been treating for some time with not as rapid results as I wished. Upon co-operating with me with the dentifrice and lotion it seemed to clean up considerably faster. —*Norwood, Ont.*

Three More Tubes

I am using Mercitan Lotion and Mer Dentifrice and I like them very much. The Mer is the best I have ever used. Enclosed you will find a check for one dollar for three more tubes. Dentu-Creme is highly spoken of by my patients.—*Minneapolis, Minn.*

A Very Good Cleaning Agent

Have no hesitancy in recommending your Mer Dentifrice and Mercitan Lotion. The latter I have been using with excellent results for quite some time and find it to be all and more than is claimed for it. The dentifrice I find is a very good cleaning agent for the teeth. In passing would also like to say a word for your Mercirex Cream, a sample of which I received quite some little while ago. Had not used it at all until one day my wife was considerably worried over a case of scalding and soreness on our little baby so I suggested that she try this Mercirex as she was getting no very great results from anything the doctor had prescribed. Two days later the baby was perfectly free from the scalding condition and very comfortable — *Peterborough, Ont.*

Make Synthetic Porcelain Restorations Permanent

(*Continued from page 5*)

be remaining. Cleanliness throughout is the first requisite for the performance of good work.

To avoid discoloring the mix of Synthetic Porcelain, use only a genuine Stellite or agate spatula especially designed for the purpose. Never use a base metal or bone spatula.

Because of the fact that a dry tooth is opaque, the shade must be selected before isolating the tooth, or teeth, from saliva. By matching a dry tooth, the restoration would be decidedly too light. It is much more convenient and accurate to use the Caulk Shade Charts for matching the different shades which require the blending of two or more powders.

The important fact must be taken into consideration, however, that the true shade of Synthetic Porcelain is not developed until three to seven days after the restoration has been made. Consequently correct matching should be done with the shade charts which allow for the gradual increase of translucency.

A perfect Synthetic Porcelain restoration requires a carefully prepared cavity. Whenever possible isolate the tooth from moisture by using a rubber dam. When conditions will not permit the use of the dam, then place cotton rolls and napkins and adjust Hare Mouth Props. Make all cavities retentive with square margins, avoiding beveling them as would ordinarily be done in preparation for gold fillings. Remove all overhanging thin walls, decay, as well as stained dentine.

Should there be any older Synthetic Porcelain fillings within the area, coat them completely with Repelac to keep them from drying out while isolated.

Sterilize the cavity thoroughly with Phenol 90%, for one or two minutes, and then dry immediately with warm air—never use a blast of hot air. Since pulp protection is absolutely essential in modern dentistry, all deep cavities should be lined with Caulk Thymozin, a preparation which contains Thymol crystals and uncalcined Zinc Oxide.

Many pulps are injured because the dentine yields while the filling is packed into place, and consequently, this danger is eliminated when Thymozin forms a protective resistent wall over the pulp.

In a shallow cavity dry with alcohol and warm air, phenolize and immediately apply Repelac to the floor and walls. The new Repelac Applicators are much more efficient for applying this lining than cotton because the old method often flooded the cavity and margins.

(*Continued on page 11*)

11

A final stroke of spatulation showing how the mix curls when it is of the correct consistency.

12

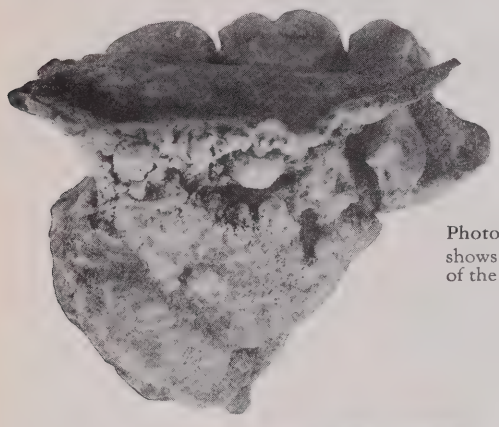
The test for correct consistency. The mix will lift and then break short when the spatula is lifted a quarter of an inch.

Remove Consistency Standard from container. Consistency Standard is not a filling material. It is merely a paste to demonstrate the correct consistency of a mix of Synthetic Porcelain.

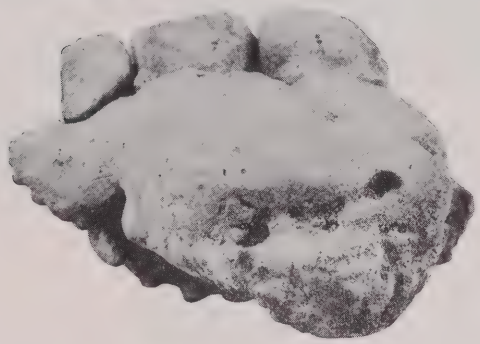
Shows how the Consistency Standard curls as it is spread under the stroke of the spatula.

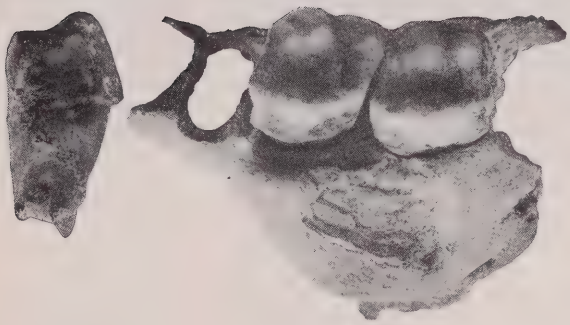
Shows the test for consistency. The mass will lift and then break short when the spatula is lifted a quarter of an inch.

Four Views of three teeth completely imbedded in a bridge or splint of calculus

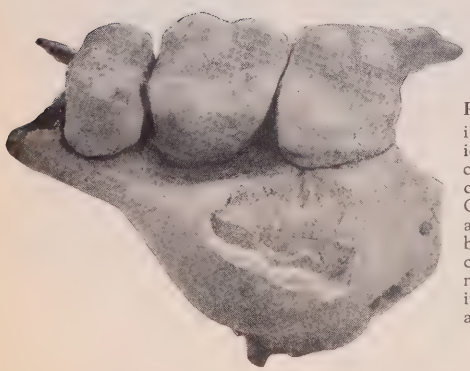


Photograph 1247-37 shows the exfoliation of the roots.





Photograph 1249-39 shows how the calculus surrounded the upper second bicuspid.



Photograph 1247-40 illustrates quite graphically, in the cavity chipped away, how the calculus is deposited. Calcium phosphate and carbonate have been built upon a mucinous or collodial matrix and arranged in concentric layers about a central nidus.

Above specimen contributed by Dr. J. G. Heckel, Bradford, Pa.

A STATEMENT OF FACT

IF every denture patient in this country could actually see a demonstration of Caulk Dentu-Creme in perfectly cleansing and sanitating his or her denture, we would be compelled to buy eleven times as much manufacturing equipment as we have at present, and at the same time work night and day, to keep up with the orders

Prescribe

CAULK DENTU-CREME

to take part of the chronic dissatisfaction out of new dentures

Dentu-Creme IS CARRIED REGULARLY IN STOCK BY ALL DENTAL DEALERS AND PRACTICALLY EVERY DRUG STORE IN THE UNITED STATES AND CANADA

Make Synthetic Porcelain Restorations Permanent

(*Continued from page 9*)

Even with the most painstaking care the Repelac will reach the margins in most cases. Since it is colorless it is not easily discovered. The safe plan to be followed to prevent faulty adaptation of the Synthetic Porcelain restoration is to always chisel the margins just before the Synthetic Porcelain is placed.

It is extremely important that the powder and liquid are not exposed on the slab until you are ready to make the mix. The liquid, in particular, must be protected against contamination and evaporation both in the bottle and on the slab.

When you are ready to mix, place three drops of liquid near the center of the slab and a quantity of powder on one end equal to about five times the quantiy of liquid. Begin the mix by drawing the first portion of powder, half the total quantity. After this first portion of powder is thoroughly incorporated, add successively smaller portions until the mix reaches the correct consistency.

You can judge the proper consistency of the mix by observing whether or not it will break into soft curling ruffles with the surface sheen just disappearing upon being spread across the slab under the spatula. In fact, the mix will resemble bread dough.

The time of mixing is vitally important. Under no circumstances should you take over a minute and a half since over-spatulation causes slow-setting —resulting in a weak disintegrating filling. In fact, a better mix can be obtained in a minute and a quarter. Ordinarily, the working time available for filling and placing is one minute. Of course, temperature and humidity may cause a slight variation in this working time.

Then fill the cavity slightly to excess—working the material well into the undercuts which have been prepared for retention. Now adjust a celluloid strip over the filling and hold it immovable for three minutes. Burnishing interferes with crystallization and is one cause of lines of demarcation. You should never, under any circumstances, burnish over the strip.

Immediately after releasing the strip, coat the filling completely with cocoa butter. This procedure will prevent loss of water from the surface of the filling and also will not allow moisture to come in contact with it.

After an interval of from ten to fifteen minutes remove any large excess of Synthetic Porcelain with an Alpine Finishing Point, well lubricated. Trimming should not be done with chisels to avoid chipping. Wipe off the cocoa butter with a pledget of dry cotton. Never under any circumstances use a solvent for this purpose.

Now coat the filling with Repelac because it is always the best plan to finish a Synthetic Porcelain restoration at a subsequent sitting. Upon dismissal, the patient should be cautioned to not eat any hard food for at least an hour.

In twenty-four hours we have about 80% of 1450 pounds crushing strength. In fifteen minutes at mouth temperature a test cylinder of Synthetic Porcelain no bigger than half a tooth resists a crushing load of 750 pounds.

The importance of this fact is recognized when you are compelled by circumstances to finish the restoration at once.

When finishing the restoration, use cuttle-fish disks and strips or Alpine Finishing Points well lubricated with cocoa butter. Avoid constant and vigorous pressure which would produce excessive frictional heat. In order to avoid the marginal ditch, finish from the tooth toward the filling. It is very essential that you have a smooth even joint between the enamel and porcelain upon dressing and finishing. It is advisable to check this condition with an explorer to avoid ditches. Finally, use Caulk Dental Polish on a felt wheel for finishing the restoration.

The technique for the tip and corner restoration, either the regular restoration or window inlay, is the same as that used for Synthetic Jacket Crowns with the exception that we can not use a complete crown form. In these cases, the crown form must cover the incisal angle completely and come well over the cavity margins. Puncture the incisal corners of the crown forms with a sharp instrument so that the air may escape freely.

The Synthetic Porcelain should be mixed slightly thinner than would be the case for the regular filling. Fill the crown forms, wipe the Synthetic Porcelain well up under the undercuts and then force the form in place, holding it immovable for three minutes. All excess is now broken off and the entire surface of the crown form and tooth is coated with Repelac.

Caution your patient before dismissal against using the tooth in masticating any hard food for at least one day. When the patient returns at a subsequent sitting, remove the form and finish the restoration with Alpine Stones, cuttle-fish disks, and strips, well lubricated with cocoa butter. This lubrication avoids frictional heat. Finally, finish the restoration with Caulk Dental Polish, using a felt wheel.

There are four definite requirements to be taken into account in making a perfect restoration which will be pleasing and satisfactory both to your patient and yourself; first, esthetic effect; second, durability; third, selection of material; and fourth, proper workmanship.

de Trey's Synthetic Porcelain is admirably qualified to produce the maximum esthetic effect. It has an adequate assortement of fifteen shades to make a perfect match of the most difficult shade of tooth structure. These shades are permanent by virtue of the painstaking care exercised in the process of manufacture. They are absolutely pure shades without the contamination always resulting from the incorporation of unrefined chemicals. And, finally their translucency matches normal tooth structure.

To carry the work to a proper conclusion, a Synthetic Cabinet is a genuine necessity.

Another Worth While Opinion on What to Do with the Infected Pulpless Tooth

THE famous Price-Buckley debate held in Chicago on the evening of October 12, 1925 was by no means the be-all and end-all of this heated controversy on what to do with the infected pulpless tooth.

The following paragraph is taken from the Official Bulletin of the Chicago Dental Society, December 25, 1925. In a very definite manner it presents the views of Dr. Thomas B. Hartzell on this subject.

"Referring to the subject, 'That Practically All Pulpless Teeth Should be Extracted,' Dr. Thomas B. Hartzell of Minneapolis refuted the theories of Dr. Weston A. Price of Cleveland, which have been accorded considerable credence in the profession. In a long and carefully prepared article he pointed out that many of Dr. Price's claims regarding the extensiveness of his researches were exaggerated, that his precepts had been too hastily accepted, and 'that an epidemic of extraction had swept over the country.' In brief, arraigning the pulpless tooth before the court of his and his associates judgment as based upon their research and experience, he found that, as a source of infections and various systemic disturbances, the defendant's guilt had been pictured far worse than the facts warranted."

WINTER is the ideal season of the year to test the excellence of Mercitan Lotion as a preventive against tonsilitis. Gargling the throat night and morning is sufficient.

You will also find that Mercitan Lotion has genuine *dental* merit as an effective supplement to your operative work.

This fact can be easily proved in any case that requires a healing, cleansing, deodorizing action and relief of soreness.

RETAILS AT ONE DOLLAR FOR EIGHT-OUNCE BOTTLE

It is economical to use, since one eight-ounce bottle plus three parts of plain water, makes

A WHOLE QUART

of delightful and effective mouth wash and gargle

Prescribe

MERCITAN *Mouth & Throat* LOTION

Printed in Canada, THE L. D. CAULK CO. OF CANADA, LIMITED, 172 John Street, Toronto

THE ARMAC PRESS LIMITED
TORONTO, CANADA

A Genuinely Practicable Procedure for So-Called Pyorrhea

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Photo by Underwood and Underwood

Also in this Issue

EXPLODED SILICATISMS!

Letters That Foretell the Future in Root-Canal Therapy

I had for the last four or five years uncompromisingly extracted all abscessed teeth; disregarded in fact all the supposed remedies and procedures entirely that held out a prospect for a cure. Then finally your book came out and only because of the "Caulk Co's." standing did I request a copy sent to me. After studying the book I felt it my duty to buy the Osogen Outfit. I have so far used it in about 16 cases with excellent results and that is quite a change—a change that I thought I never would make. In the last 5 years I haven't treated one abscessed tooth. I feel that you are entitled to a great amount of credit in behalf of humanity and the Dental Profession.—*Minnesota.*

I have been having very satisfactory results with Osogen and I believe it will do all you claim, just follow instructions and *use "sense" and reason.*—*Minnesota.*

I'm frank to say that I've been more than pleased with the results I've had with Osogen so far. I've had a case or two in which results were not immediately satisfactory. But there were some other things which entered into them. I chanced to have just at the time my Osogen Outfit arrived, one of those cases filled long ago, which had been sore periodically. I used it as a test case. Still bound by old routine I used four or five treatments. but the case cleared up remarkably fast. About eight months now and that tooth is perfectly comfortable, not having had a recurrence of that former periodic soreness. I'm using only Osogen for all root-canal fillings, and several of my friends are also.—*Iowa.*

Your Osogenation treatment has been very satisfactory to me. It is one more of the things I could not afford to be without.—*Iowa.*

EVERY one admires the conservative professional man. It must become a habit with you to be reasonably reticent about expressing your opinion on controversial subjects.

Then in considering the adoption of a new method you are unquestionably justified in first becoming intimately acquainted with the new principles involved. Is it efficiently practicable for routine daily practice, as opposed to merely theoretical?

There are many other factors which you must take into account also before arriving at a favorable decision. Consequently, your conservatism must never be mistaken.

You have a right to first know the plain facts in the case. And if the proposed method denotes another step in the progress of scientific dentistry, then it is not at all difficult to present to you convincing evidence which can be actually substantiated in your practice.

Briefly, this is the attitude which we have consistently held to in presenting Osogenation for the management and treatment of putrescent pulp-canals and periapically infected teeth. The scientific facts published in the original book, in the supplement edition booklet and in many past issues of Milford News furnish the basis upon which we invite you and all others interested to consider its practicable value.

The evidence is complete in every detail. No single point has been overlooked. And a possible vagueness has been successfully dispelled by the use of familiar terms.

Herewith are reprinted a few of the multitude of letters which have been received from one section. A careful reading of them is bound to favorably impress you.

Is not this evidence sufficiently convincing?

I have used Osogen in twenty-six cases over a period of nine months. Two of these cases, I had to reopen and treat again with Osogen. These patients are suffering no discomfort at present time. But since discontinuing the use of Phenol, I have eliminated it. Sorry I have not some helpful criticisms to offer. Have followed your technic carefully using X-ray freely and following cases up closely. Have not had *one* failure. I realize that it is exceptional and did not expect such results. However I have been very careful about selection of cases and have only treated teeth with single roots and where canals were accessible.—*Minnesota.*

Osogen gives the best service of any root-canal filling that I have ever used and if it works in all cases as it has in the one that I have been able to follow to completion I am sure that it is the best thing offered to the dental profession since I have been interested in dental practice.—*Minnesota.*

I obtained Osogen as soon as it was placed on the market in this territory and have been a consistent user of it ever since, being now on my fifth box. Some four years ago I discontinued devitalizing except in cases where the patient could not stand for extraction and infected teeth were extracted without question. With Osogen I have saved somewhere near 100 teeth which I believe to be healthy organs. Out of this number I have extracted but one tooth upon which treatment was started. Have used it on several deciduous teeth. Here the technic was deviated from as little folks do not tolerate the dam very well. The results have been gratifying.—*South Dakota.*

I have given Osogen a fair trial, having followed instructions closely, and find it very valuable in treatment of abscessed teeth, having saved many teeth which would have otherwise been extracted.—*Minnesota.*

I have used Osogen in 27 cases, with only one flare-up afterwards, and I attribute that to over application, i. e. forcing canal contents beyond apex, at first application. Apparent results are very satisfactory. Expect to check up my cases with the X-ray from time to time, but am beginning to be absolutely sold on Osogen right now. Have used it with good results after pulp extirpation under cocaine pressure anaesthesia.—*Minnesota.*

My Osogen outfit has taken the place of the forceps in a number of cases where I felt the tooth was doomed. Systemic conditions responded as rapidly as had previously been the result from extraction and curetment. I am satisfied beyond a doubt that where destruction of tissue is not too great, that Osogen will do all that you claim. My files tell the same story your booklet does.—*Wisconsin.*

Your letter regarding results with the use of Osogen at hand and will state that so far I am convinced that if used properly will give the necessary results. I had the first case turn out most favorably. In an upper right central I had placed a beautiful gold inlay and after a few days the patient returned with an abscess over the tooth that I had filled. I must have been too hasty in my diagnosis and consequently filled an infected tooth before treating it. However I opened the tooth from lingual and treated the case with Osogen and got fine results. The tooth was examined by some of those SHOW ME kind and I believe I showed them.—*Minnesota.*

The results with Osogen are astounding. The use of it has reduced my extraction operations more than fifty per cent. Not one of the Osogen cases has returned with a bad report.—*Wisconsin.*

A Genuinely Practicable Procedure for So-Called Pyorrhea

An interested and patient reader of the countless articles on so-called pyorrhea can generally glean but little practicable information which may be profitably adopted in daily practice. Valuable facts may be present, but they are generally so hopelessly buried beneath a veritable avalanche of unfamiliar and made-to-order terms that they are completely lost.

In fact, the effect of such an article is like signalling to Mars—the message gets off but it never gets there.

There is no real need for being so despairingly vague in presenting the plain facts in the successful treatment of this condition—for after all it is nothing but a condition or complex of symptoms. It is brought about originally by a lesion to the gum tissues due to some mechanical irritant and then proceeds to inflammation and infection.

If this statement is true—and it has been successfully proven through exhaustive clinical research—then why should any writer continue to emphasize certain factors, for example, whether periodontoclasia is a disease produced by germs or the result of systemic disturbances? Neither is correct, although of secondary importance, and it is a lamentable waste of time and energy to add to the argument.

For the general practitioner engaged in routine daily practice there are certain plain facts which, when thoroughly understood, can be invaluable in successfully treating so-called pyorrhea. First of all, the primary cause is mechanical irritation. Traumatic occlusion, faulty dental work, incorrect prophylaxis at home by the patient, serumal and salivary calculi are the principal mechanical irritants. The secondary causes include bacteria and lowered resistance.

Obviously, the commencement of treatment must begin with the elimination of the primary causes. The care with which the operator carries on this instrumentation governs directly the success of final treatment. Under no circumstances can a medicament be looked upon in any other way than as an indispensable aid.

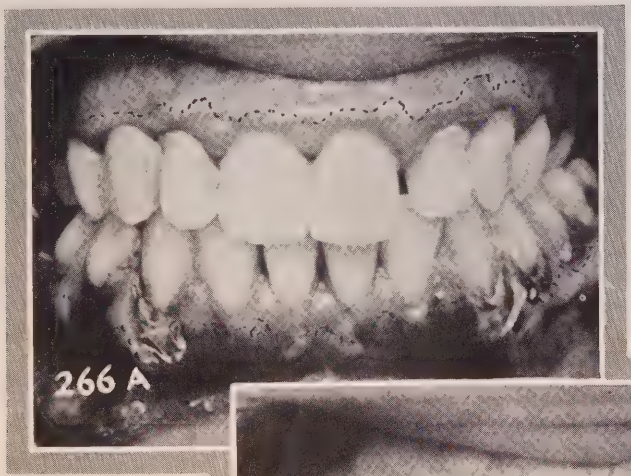
Many men claim that after instrumentation is carefully done no medication whatever is necessary. The fallacy of this argument can be decisively demonstrated by clinical experience and by the practice of medical men in the treatment of lesions in other parts of the body.

Can you imagine a physician ignoring the danger of increased infection by failing to apply some germicidal agent to an open wound? Or why does a surgeon after every operation employ antiseptics to assist nature to that extent?

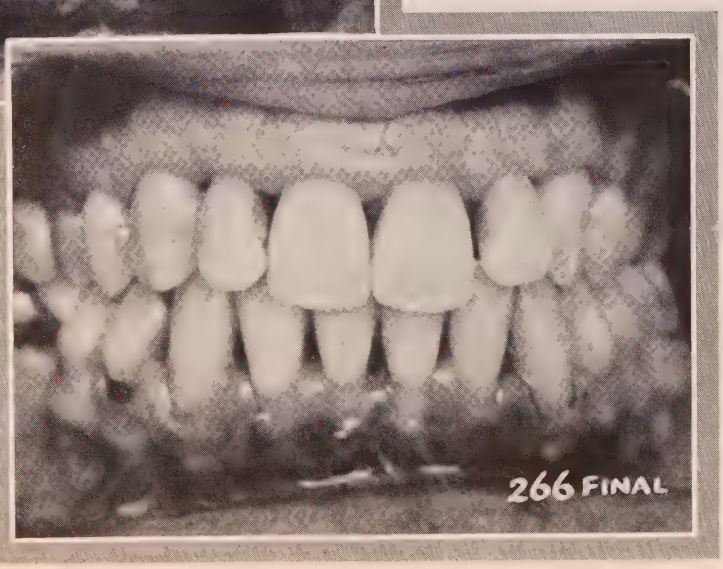
The resistance of the gum tissues in every case of pyorrhea must be greatly lowered or else there would be no condition. Is it not reasonable and decidedly good practice, therefore, to employ such an efficient medicament as Mercitan is to assist nature in throwing off the infection?

During the five years that Mercitan has been used in the Caulk Clinic, hundreds of cases of extreme oral neglect, with incipient and far advanced pyorrhea, have been carried to complete comfort and health by less than ten treatments given within four weeks' time.

The following presents an outline of treatment with Mercitan which can be successfully adopted in routine daily practice. Even for those already familiar with the Mercitan procedure, it may be quite worthwhile to read again this comprehensive outline.



Mercitan Case 266—First photograph taken at first visit. Dotted line shows the depth of the pockets. Tissues in the region of the lower anteriors very dark red, like raw meat. Gums bled very easily and parts of the mouth resembled patches of granular tissue. All teeth were somewhat loose. The breath was offensive several feet away.



When first examined pus could be squeezed from underneath the gum at the gingival of almost every tooth, showing in the photograph at the gingival of the two upper laterals. When the case was dismissed (Right) general health greatly improved. Teeth are all solid. Gums in firm, healthy condition, without pockets. Patient able to masticate and enjoy meals again.

General Procedure of Treatment

Treatment in all cases may be divided into first and second stages. In the first stage the object is to eliminate the infection, destroy the dead tissue, correct traumatic occlusion, and to remove mechanical irritants, such as tartar and roughened surfaces.

In the second stage, the object of the treatment is to encourage and assist in the formation of scar tissue and promote regeneration of bone.

First Stage of Treatment

Examine the entire mouth thoroughly and if possible make a complete series of radiograms for further study. If the case is an acute one, painful, with gums bleeding easily, apply mild Mercitan Fluid to the free margins of the gum about all of the teeth. Protect the other parts of the soft tissues with cotton rolls. Use one of the Stellite applicators. Dip it into

(*Continued on Page 6*)

Dreads and Fears Caused by Skin Disorders

WHEN a skin disorder persists, whether treated or not, and especially when the eruption is exposed to view on face or hands, or when itching is intense, the sufferer is apt to develop dreads and fears out of all proportion to the nature of the ailment.

In May, 1925, a young lady was greatly alarmed to find that a skin eruption was breaking out on each side of her nose. She consulted the family physician about the ailment. He assured her that there was no occasion for alarm. All signs of the eruption would vanish within a very few days.

For treatment he applied a caustic, probably silver nitrate, to the areas, thereby increasing the objectionable appearance of the condition.

At the end of a week the patient could observe no improvement whatever. In fact, she was positive that the areas had increased somewhat in size. The death of her father four years before from cancer gave her the occasion for all sorts of dreads and fears.

Again she consulted her physician and again he assured her that there was no need to be alarmed. He applied a caustic the second time.

During this period the patient was gradually becoming sensitive about her appearance. She was confident that her friends were commenting upon her case and were suspecting that this skin eruption was the first sign of cancer. She became morose and virtually hid herself away from contact with others.

At the end of the fourth week there could be no doubt whatever that the condition was spreading. Despite the emphatic reassurance of her physician, she was positive in her own mind that there could be only one cause. And yet she feared to learn the truth from a specialist.

A friend was informed of her case. He had had pleasing success with Mercirex treatment previously on a skin eruption and immediately the thought occurred to him to send a complete Mercirex unit to this patient.

Treatment was promptly commenced with the Mercirex Soap and Cream. Within two weeks the infection had been definitely arrested. At the end of a month not the slightest trace of irritation could be observed. The areas had completely healed.

MERCIREX is not any haphazard combination of trifling antiseptics.

It is the result of an intensive study of skin diseases, arising out of the successful development of Mercitan for professional treatment of gum conditions.

The value of Mercitan has been well demonstrated in treatment of mouth tissues. Mercirex applies the same principle to treatment of the skin.

Mercirex is not a beauty cream, but though the medicinal effect is marked, it is not unpleasant to use. It is not greasy, has no druggy smell or dark color, and does not betray the user by any dark stain on skin or linen, nor by any offensive odor.

The color is a light pink, flesh tint, and the perfume is very delicate.

One of the important reasons for the effectiveness of Mercirex is that it does not remain on the surface of the skin, but under gentle massage or rubbing it penetrates through the epidermis to the corium or true skin beneath.

A booklet is enclosed with each package, giving specific directions for treatment of various diseases, such as eczema, acne, itch, ringworm, chafing, prickly heat, plant poisonings and other disorders of the skin and scalp.

Copies of this booklet may be obtained free on request.

In order to obtain the speediest and most satisfactory results in treatment, the use of Mercirex Soap is strongly advised in connection with the Mercirex itself.

Complete Treatment Package, including Mercirex Soap, **$1.25**
Mercirex Cream alone, regular size jar, **75 cents**
Hospital Size, **$3.00**
Mercirex Soap, box of 3 cakes, **$1.00**

Comment From the Tropics

"It gives me pleasure to express my thanks to you for one of your products which I have found to be the only cure for a skin disease that has troubled me for several years. I want to say that your Mercirex Treatment has completely cured me. While serving in the U. S. Marine Corps against bandit forces in Haiti, I contracted a skin disease known as the Tropical Itch. After coming back from the tropics I still suffered from this skin disease. I tried most everything that money could buy and spent several hundred dollars with skin specialists without being benefited. After visiting Milford and receiving a box of Mercirex, all signs of the itch were removed with four applications of the cream. During the past five months I have not been bothered with this skin trouble. The treatment which you have developed is absolutely marvelous." — *Philadelphia, Pa.*

After Seven Years' Search

"The following statement will no doubt interest you," writes a professional friend from Ironton, Ohio.

"Mrs J. L. J., Sheppards, Va. (my niece) has had eczema on one of her arms for seven years, which at times was very painful, itching intensely. She had tried a number of so called eczema remedies, and several doctors had prescribed for her, but the eczema continued to annoy her, until she had about given up in despair, thinking she would never find a remedy which would cure this most aggravating and painful skin disease.

Last fall while on a visit to Virginia I gave her a small jar of Mercirex. She used it twice a day, and she could see from the beginning that it was benefiting her. She has used several jars of Mercirex since that time and I am glad to say the eczema has almost disappeared and I think a few more treatments will affect a complete cure. Naturally Mrs. J. is very enthusiastic about Mercirex and so am I.

Of course I am still using your Synthetic Porcelain; there is nothing like it. Have used it for twenty-five years and shall continue to do so until "The Black Camel Kneels at the door of the tent."

EXPLODED SILICATISMS!

ANCIENT man long held the notion that matter could be destroyed; also that it could appear out of nothing by some clever act of creation. Many centuries elapsed before man used the balance to measure mass and thereby discovered that matter can not be destroyed.

Chemical reactions occur aplenty, causing magic transformations. But matter itself as it exists can not decrease or increase. A match burns and is destroyed but the gases, water, carbon, and ash which result weigh just as much as the original match.

Truth, likewise, can seemingly be destroyed, but in reality it is as indestructible as matter itself.

These thoughts are but reflections upon a recent visit of a dental society in the Caulk laboratories at Milford. In an informal discussion with the Caulk Dental Research Staff it was discovered that many of the visiting dentists had a confused and distorted knowledge of silicates with respect to their individual chemical and physical properties.

Several dentists thought that the baked porcelain shade guide supplied by the manufacturer of a certain silicate, was actually that same silicate molded into tooth shapes. They were told this erroneous claim by a sales representative.

Consequently, when correctly informed that the shade guide was nothing but the same baked porcelain used in making artificial teeth and that the silicate in question, like all silicates, requires constant immersion in water to prevent checking, they readily admitted that their informant must have been an alchemist who did not know that air, earth, fire and water were no longer considered to be chemical elements.

This explanation started a symposium which, we must hasten to add, was strictly conversational and not in violation of the eighteenth amendment.

Some of our friends had been informed that a certain silicate does not kill pulps. The inference was that some do kill pulps. A little cross-examination elicited the interesting information that this particular silicate did not kill pulps because it was fused at such a high temperature that the arsenic was all burnt out.

"Not only the arsenic but it is also claimed the cobalt and iron are burnt out too."

It was then explained that arsenic is commonly added as a decolorizing agent to the raw batch used in making glass. Its complete volatilization, however, is most doubtful because this depends entirely upon the state of oxidation. Heat alone could not be depended upon to drive out all of the arsenic.

The scientifically informed manufacturer starts with pure, arsenic-free chemicals instead of depending upon heat to drive out this impurity.

As to cobalt it is known to produce a rich blue color in glass and is not volatile. Heat therefore can not drive it out.

Iron produces a green color in glass and does not burn out. For that reason manganese is added to produce a red violet coloration and so compensate for the green color formed by the iron.

Most emphatically heat does not drive out the impurities and it is quite likely that this mistaken dependence upon the miraculous powers of heat may account for the discoloration in the mouth of certain silicates.

One thing brings up another, but let us return to pulp death.

Careful modern manufacturing enables us to produce Synthetic Porcelain—powder and liquid—free from arsenic. Do you know there is by far more arsenic in the ham and fruit jelly that you eat than there could possibly be in a Synthetic Porcelain restoration?

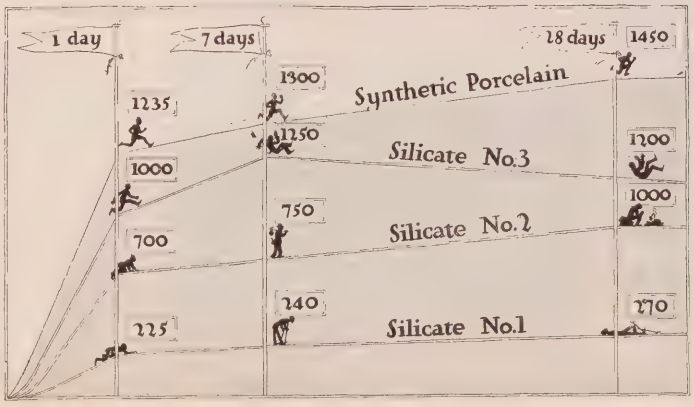
No informed chemist would hold today that any of the representative silicates or dental cements contained arsenic in quantity sufficient to even remotely influence a living tooth pulp. That arsenic in filling materials of today is responsible for pulp death is just as sound as the ancient Hindu belief that pearls used as amulets protected against sickness and gave one a hundred years of life.

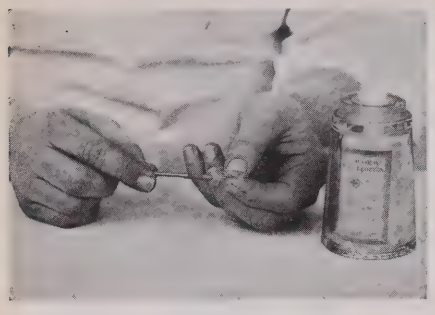
Streptococci invading the dentinal tubules are the offenders recognized today as responsible for 95% of pulp death under all fillings, metallic or cementitious. This is the answer of modern science to the arsenic superstition.

(*Continued on Page 9*)

The Comparative Strength of "Silicates"

The chart shown at the right plots the strength of three representative silicates in comparison with Synthetic Porcelain over a period of 28 days after the insertion of the filling in the tooth. The tests were made in saliva at body temperature with cylinders 5 mm. long and 5 mm. in diameter.





Twist a wisp of cotton around point of fluid applicator.

Moisten cotton on applicator with Mercitan fluid and apply. An alternate method is to use tampon.

Spread Mercitan tampons fan-shaped in basin of tray containing Mercitan fluid. Pick up one saturated tampon with pliers.

A Genuinely Practicable Procedure

the fluid. Place the point on the gum margin. Raise the "elbow" or angle above the level of the point by rotating the instrument in the fingers. The drop of Fluid will descend to the place desired.

In cases which are NOT ACUTE, and when conditions will permit, the first step in treatment is to scale and polish all teeth, removing all calculus in sight. Then dismiss the patient with full instructions for home treatment, which has for its object the establishing of conditions as hygienic as possible in that mouth.

FIRST STAGE—SECOND PERIOD

Place a few drops of Mercitan Fluid mild in one of the small basins on the tray, and Fluid strong in the other small basin.

Following are two methods for applying the Mercitan Fluid.

First—The Mercitan Fluid may be applied by twisting a few shreds of cotton on the point of an applicator. With this cotton saturated with the fluid, wipe out all pockets and free gum margins that show any evidence of congestion. Do not flood the gums with fluid. If the cotton takes up too much fluid, touch it to the cottonoid blotter to get rid of the excess.

The cotton should carry just enough fluid so that you can apply it carefully and precisely all over the affected areas and into the pockets.

The function of the fluid is to cleanse the affected parts and to rid them of all necrosed tissue and debris. As the applicator becomes clogged with debris clean it between the folds of the cottonoid blotter. When desirable sterilize the applicator by burning off the cotton.

Second—The Mercitan Fluid may be applied by the aid of tampons. The Mercitan tampons are impregnated with the active principle of Mercitan Cream but they are to be saturated with fluid or cream before use.

Take a bundle of tampons and hold by one end between thumb and finger. Spread out the other ends fan shape and place the bundle in the basin containing the fluid. The purpose of spreading out the tampons is to make them easy to pick up one at a time with the pliers.

Pick up one tampon with the pliers, hold it against the tooth surface, just below the gum margin. Then by means of one of the Mercitan applicators gently push the tampon under the gum and into the pocket. Several tampons can be put into deep pockets.

During the first stage of treatment with the fluid, tampons should not be left in the pockets longer than two to three minutes. However, as the case progresses the tampons may remain up to five minutes.

Mercitan Cream may also be applied by the aid of tampons. They are soaked in the cream in the same manner as the fluid and applied in the pockets in the same way. Cream taken from the jar will be too thick for use with the tampons. Thin some of it with a few drops of glycerine in the tray so that the tampons can soak it up.

Always remove all tampons before dismissing the patient. In case a tampon is overlooked no great injury will result although its presence under the gum margin may cause soreness and some inconvenience.

If the patient does not complain of pain from the previous treatment, all teeth may be treated at each visit. But if a severe reaction has occurred, the case may be continued on a two or three day schedule, with one-fourth or one-half the number of the teeth treated alternately at each visit, thereby spacing the treatments of each individual tooth or pocket one week apart.

This procedure usually is sufficient to bring the desired results without the liability of overtreating the acute cases.

When patients come from a distance or happen to have but a certain day each week to give to the dentist, satisfactory results may be obtained by making the appointments one week apart.

FIRST STAGE—THIRD PERIOD

Quiz the patient about carrying on the home treatment. Explain the benefits that are being accomplished. Encourage faithful following of instructions so that complete co-operation may be had.

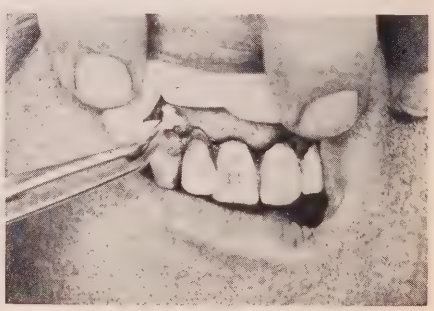
At this visit search for subgingival deposits and begin their systematic removal.

Place in one of the basins five drops of mild Mercitan Fluid and add five drops of water. Immerse some tampons in the fluid. Pack all pockets full to distention with the saturated tampons. When all pockets have been packed (or as many as time for scaling will permit), first absorb the moisture around one pocket at a time and remove the tampon.

The pockets thus treated will usually be dry and so distended as to permit of vision to the

Place tampon below gum margin with pliers. Gently pack into pocket with fluid applicator. Do not flood gums.

Fill pockets with Mercitan Cream using Injecto-gun. Do not treat an area with both fluid and cream at same sitting.



Wipe away excess cream with cotton pledget.

When desired, Mercitan Cream may be applied superficially as a poultice on a cottonoid blotter. Cut blotter to suit.

Spread thin layer of Cream on blotter.

Raise lip and apply poultice to affected area.

for So-Called Pyorrhea—(*Continued from Page 3*)

bottom, bringing into full view the exposed portion of the root with the deposits thereon.

Remove every particle of these deposits. Plane, smooth and polish the cementum from which the peridental membrane has been detached, and carefully polish the cemento-enamel junction, rendering all surfaces as highly polished as possible. As hemorrhage occurs in each pocket, the work in that pocket should be suspended till the next visit.

However, the scaling and polishing process must not be deferred too far along in the course of treatment, because when infection and inflammation have been materially reduced (in Mercitan Treatment this result is often very rapid), the repair tissue will materially encroach upon the space, leaving the pocket too small to work in.

Failure to anticipate this rapid closing of the pocket is the reason why cases disappoint the operator by failing to heal completely.

If the deposits and roughened root surfaces in the pocket are neglected until they are completely housed, the dentist is then robbed of the chance to do the scaling and polishing which in every case should be done before the pocket is allowed to close.

During this third period, these pockets which have not been subjected to prophylactic treatment as outlined, may be allowed to rest or may be given a treatment of the mild fluid in its full strength, not diluted. Then four, five, six or even more visits may be necessary to complete the work of the third period, which should terminate the first stage of the treatment.

Second Stage Of Treatment

The first use of Mercitan Cream designates the beginning of the second stage of treatment.

The cream is used for an entirely different purpose from the fluid.

However, near the close of the first stage it is sometimes advantageous to overlap the use of fluid and cream in the same pocket. In all cases the treatment will overlap in the same mouth, because the pockets will be in different stages of progress in the process of tissue repair.

SECOND STAGE—First Period

To Mercitan Lotion, one part, add two parts water, and use this dilute Lotion in a large capacity water syringe to wash out all pockets as thoroughly as possible. If a compressed air atomizer is available, use it with about ten pounds pressure.

Adjust cotton rolls labially and lingually.

Dry the areas to be treated. Insert the cotton pledgets endwise into spaces between the teeth. Place five or six drops of mild Mercitan Fluid in one of the basins and dilute by adding an equal amount of water.

Saturate Mercitan tampons in this diluted fluid and pack all pockets tightly to the apices using as many tampons as required to fill each pocket. In very large pockets use the cotton pledgets. In this treatment the fluid acts as an astringent so that the pockets will be dry and distended when the tampons are removed.

When all pockets have been filled, begin by absorbing the moisture about each pocket, one at a time. Remove the packing, inspect the pockets and smooth away any deposits or roughness. Fill the pockets immediately with Mercitan Cream strong. Small gingival spaces may be filled by employing the Stellite applicators. Slightly deeper spaces or pockets can be filled by the minature spatula. Large and deep or irregular pockets can be filled by the Injecto-gun and celluloid injectors

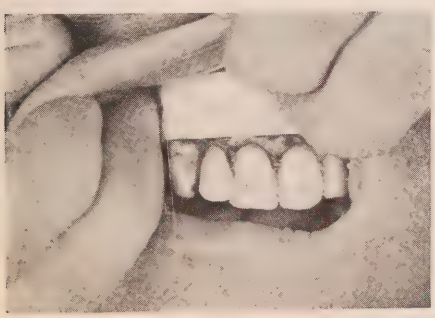
Dismiss the patient for a convenient interval — about three days or a week.

Do not treat any individual pocket oftener than once a week. As the case progresses generally, or as the individual pockets heal, DISCONTINUE the strong cream and use the mild cream. Also extend the interval between treatment of each individual pocket more than one week. Over-treatment often interferes with healing.

As soon as the irritants and irritations (bacteria, tartar, roughened tooth surfaces, trauma, and the chemical irritation of over-treatment) have been eliminated or stopped, bone will begin to form into the granulation tissue about the teeth, causing them again to become tight and firm. These trabeculae (bone spicula) growing from the alveolar process toward the tooth, should not be disturbed.

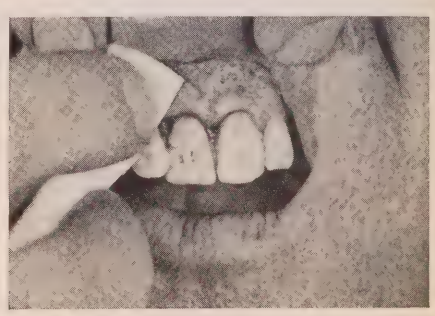
Over-treatment during the latter periods is sometimes the unseen cause that retards or prevents bringing the case to a fully satisfactory conclusion.

In the second, third, fourth and later periods of the second stage, repeat the treatment outlined for first period, second stage.

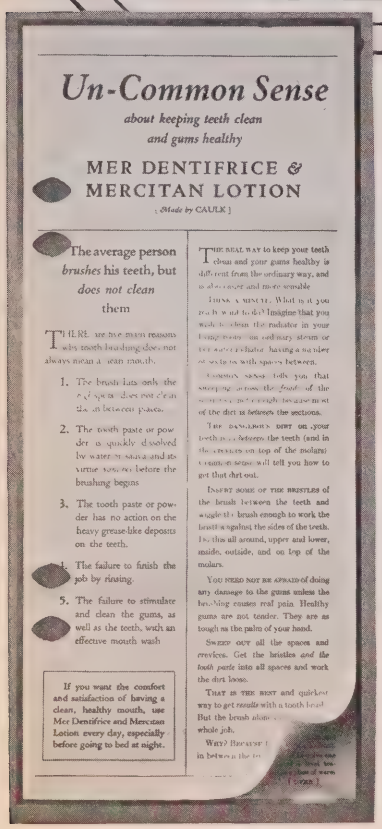


Stretch lip over poultice.

Allow poultice to remain on affected area for five minutes. Then remove it, using end of cotton roll.



Wipe away excess Cream before dismissing patient.



Un-Common Sense

about keeping teeth clean and gums healthy

MER DENTIFRICE & MERCITAN LOTION

Made by CAULK

The average person *brushes* his teeth, but *does not clean* them

THERE are five main reasons why tooth brushing does not always mean a clean mouth.

1. The brush hits only the surfaces, does not clean the in between places.
2. The tooth paste or powder is quickly dissolved by water in saliva and its virtue is lost before the brushing begins
3. The tooth paste or powder has no action on the heavy grease-like deposits on the teeth.
4. The failure to finish the job by rinsing.
5. The failure to stimulate and clean the gums, as well as the teeth, with an effective mouth wash

If you want the comfort and satisfaction of having a clean, healthy mouth, use Mer Dentifrice and Mercitan Lotion every day, especially before going to bed at night.

THE REAL WAY to keep your teeth clean and your gums healthy is different from the ordinary way, and is always easier and more sensible

TAKE A MINUTE. What is it you really want to do? Imagine that you were to clean the radiator in your living room with ordinary steam or tea and then rinse it with water having a number of soda in with spaces between.

COMMON SENSE tells you that sweeping across the fronts of the teeth does not clean the in between surfaces of the teeth because most of the dirt is *between* the sections.

THE DANGEROUS DIRT on your teeth is *between* the teeth (and in the crevices on top of the molars) common sense will tell you how to get that dirt out.

INSERT SOME OF THE BRISTLES of the brush between the teeth and angle it enough to work the bristles against the sides of the teeth. Do this all around, upper and lower, inside, outside, and on top of the molars.

YOU NEED NOT BE AFRAID of doing any damage to the gums unless the brushing causes real pain. Healthy gums are not tender. They are as tough as the palm of your hand.

SWEEP OUT all the spaces and crevices. Get the bristles *and the tooth paste* into all spaces and work the dirt loose.

THAT IS THE BEST and quickest way to get *results* with a tooth brush. But the brush alone [illegible] whole job.

WHY? Because [illegible] in between the te[illegible]

[OVER]

*"ATTACHED to the tube of Mer Dentifrice, which you are to purchase, is a decidedly interesting folder on how to keep teeth clean and gums healthy. I heartily approve of every recommendation made in it. Therefore, I'll not need to explain to you the prime importance of correct mouth hygiene. Instead, **I insist** upon your reading the folder carefully. Then faithfully carry out the directions at home to co-operate with me."*

Isn't this the most convenient and effective way to gain the full co-operation of each patient, particularly those undergoing treatment for periodontoclasia?

MER Dentifrice

A Book Review

DENTAL INFECTIONS

Two Volumes—DR. W. A. PRICE

"Volume I contains the discussion of the results of the author's 'researches on oral and systemic expressions of dental infections.' Here he formulates forty-five questions such as: 'To what extent are the roentgen rays capable of disclosing dental infections? What is the relationship of the quantity of dental infection to the type and extent of systemic involvement? What, if any, is the relationship between dental infections and carbohydrate metabolism? What is the role of calcium in the maintenance of the acid-alkali balance of the blood, through body fluids and tissues?'

"The development of answers to these questions by the massing of experimental data and the deductions made from them all of which are summarized on the last pages, constitute the first volume.

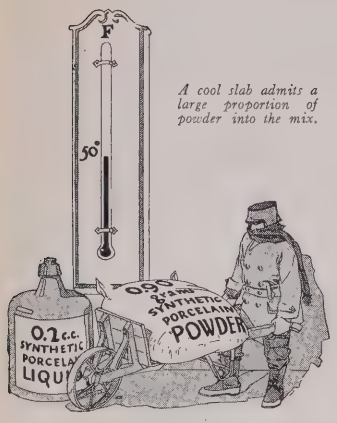
"In volume II, an effort is made to apply the conclusions derived from the preceding volume to a study of inflammatory diseases of the various organ systems, as, for example, the circulatory system. It is obvious that these investigations cover a very wide field, including a number of sciences in which the technic or research is highly specialized, such as the physics of emanations from the roentgen ray and radium; the chemistry of metabolism, and immunology.

"The author's conclusions and observations fall into two general groups; those that are generally accepted or do not differ in any essential respect from the facts and deductions presented by other investigators that is, those that need no emphatic affirmation, and those observations and conclusions that do not at all harmonize with those of other workers.

"Unfortunately, for the most part, in the last group the experimental methods used by the author to develop his data are not stated with sufficient detail and accuracy to enable another worker to repeat the author's experiments in order to verify his results. Furthermore, his conclusions are developed with such deductive

(*Continued on Page 11*)

EXPLODED SILICATISMS!



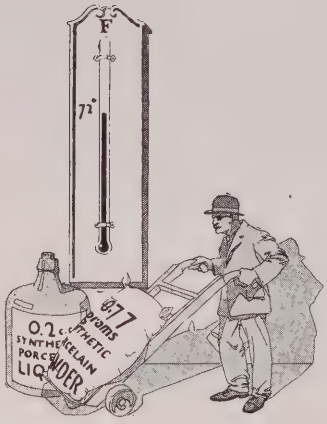
A cool slab admits a large proportion of powder into the mix.

(*Continued from Page 5*)

"Yes, but arsenic will kill a pulp", chirped one of the recent graduates.

"True," was the reply. "However, arsenic in the days of Lucretia Borgia was used to kill, but now in the form of arsenobenzol it is ridding man of his protozoan enemies. No, doctor, the best way to prevent pulp death under fillings is to sterilize the dentin. A clean bur cuts from infected into sound dentin and is the advance agent of the streptococci. Sterilize, line the cavity, and cap the pulp when necessary, and your troubles with pulp death will vanish. If you fail in this you merely dodge the inevitable and no amount of arsenic talk will bring back to life one of those dead pulps."

"A fellow told me last week that all these precautions in technique were not required with his material which worked as easy as putty scooped out of a bucket," said a snappy professional looking young dentist who certainly showed no evidence of close kinship to a glacier. But then, ex-hardware salesmen, like ex-prize fighters, are nowadays drifting into all sorts of dignified professions.



At higher temperature a smaller quantity of powder goes in.

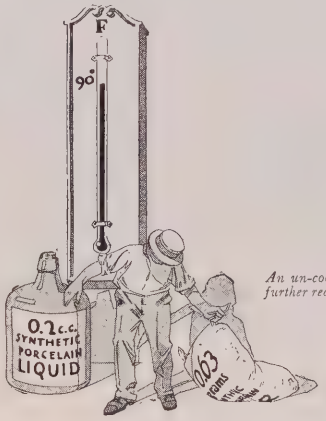
The question started an acrimonious discussion which included every kind of suggestion from lynching the putty salesmen to forming a standing committee of the Society for the standardization of technique for silicates.

The succeeding quiet, however, enabled us to explain that putty, when not adulterated, was a mixture of whiting and linseed oil and had no chemical relationship to a silicate. The powder of the silicate is an alumino-calcium silicate and the liquid aqueous alumino-phosphoric acid. Putty could be mixed by the baby or in big kneading machines but silicates because of the intense affinity of powder for liquid must be mixed on a slab in a certain definite way.

Then followed some explanations with charts that showed how mixing too thin lowered not only strength but resistance to saliva. How evaporation of water from the liquid retarded the setting and lowered the resistance to oral fluids. How mixing on a slab at 65° to 75° F. allowed the incorporation of a certain definite amount of powder which gave a filling with maximum strength and resistance to disintegration.

How mixing on a slab that was too warm made the setting too rapid and lowered the strength because too little powder was incorporated.

One chart showed the rate of hardening of Synthetic Porcelain, a gradual increase in strength—45% in the first 15 minutes to about 85% of the full strength in one day. For the first time this graphic explanation convinced many of the advisability of deferring finishing of the filling to the following day.



An un-cooled slab at summer temperature still further reduces the necessary amount of powder.

"Well, that question about technique certainly taught me something new. But I was told that a certain silicate was 25% stronger than Synthetic Porcelain," said an inquisitive looking chap on the back seat.

That statement started a discussion that sounded like a meeting of a society of physicists instead of a meeting of dentists. Kilograms, pounds, millimeters and inches came in for a much needed review among those who never before saw the relation of mathematics to dentistry.

It was explained that claims for crushing strength meant nothing indeed unless a lot of factors were carefully controlled in making the test. Everything had to be controlled: temperature of slab, quantity of powder and liquid, size of cylinders, storage time and temperature, rate of application of load in crushing and many other little items which could creep in to give fictitious results. And then it required check tests for each period of time.

The particular silicate which sailed under the "25% stronger" slogan took the toboggan and stopped at just 74% of the strength of Synthetic Porcelain which still is the strongest dental cement known.

"It is claimed that another silicate is more translucent than Synthetic Porcelain," brought out another questioner.

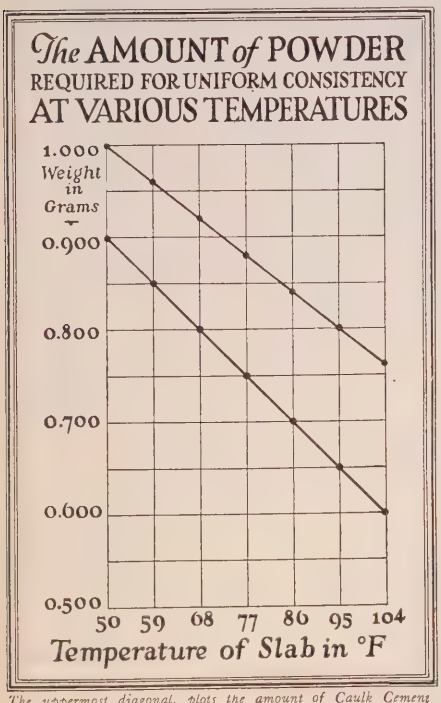
The talk then sounded like a Nela Park research laboratory conference. Definitions of transparent, translucent, opaque, shadow, intensity of illumination, reflection and refraction were hauled out and rehashed. It all ended with an appreciation of the fact that translucency must be adjusted to a degree and not to a maximum.

The translucency must match the tooth and not the window pane. Certain silicates were shown to be too opaque and others too translucent for perfectly matching the tooth structure.

A very warm slab dangerously reduces the powder content.

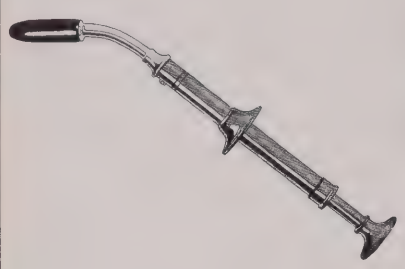
Bragging about too much translucency proves somewhat dangerous because little shadows creep in to make the super-translucent filling unnatural and unsightly. The color problem is so closely related to translucency that it could not be kept down.

(*Continued on Page 11*)



The uppermost diagonal, plots the amount of Caulk Cement powder required for uniform consistency at different mixing temperatures. The second diagonal represents the same information for Synthetic Porcelain. This chart is redrawn from The Journal of Industrial and Engineering Chemistry, Vol. 8, No. 4. The cartoons on this page tell the same story in another way.

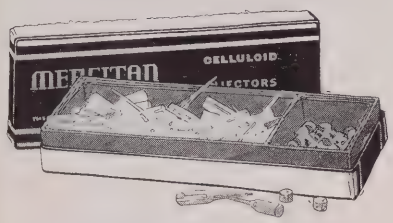
A System of Treatment with Each Item in the Unit Playing Its Specific Part in Success



To Fill Pockets From Their Apices

A SURFACE smear of Mercitan Cream will not do in advanced cases with pockets. It just can't be expected to help much. For the infection is at the apex of each pocket. And it doesn't move out until forced out by germicides.

To get the Cream in combat with the infection use the efficient Injecto-gun. Price $4.00 at your dealer's.



Not Flimsy Like Gelatine

MERCITAN INJECTORS are celluloid—thin as tissue paper but tough as your thumb nail. Finely tapered. Water-proof; not softened by saliva or Mercitan Cream. They are specially formed to fit the Mercitan Injecto-gun.

The newest ones are thicker. Specify the "Heavy-wall Injectors" to your dealer at $1.85 per box of 100.

Just Off the Press

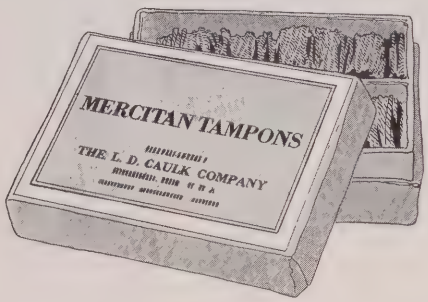
Here is the latest booklet on Mercitan Treatment. In it are explained in detail the different instruments and accessories which are so indispensable to the efficient and best procedure. Also the up-to-date technic is outlined in a comprehensive way. A request from you is all that is necessary to receive one without charge.

TEN PATIENTS, TEN TREATMENTS EACH

BOTH the strong and mild Mercitan Fluid and Cream are required in the two stages of treatment to get maximum results. Good judgment warns against employing the same strength medicament for both incipient and far advanced cases.

After all, success with speed is essential. And using just the right strength fluid or cream as indicated by the condition of the case at each visit brings most *rapid* action.

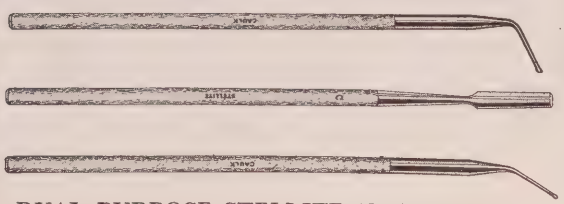
The complete package sells for $10.00. The Cream separately, either mild or strong, is $3.50 per jar—the Fluid $1.50 per bottle.



NEAT AND EFFECTIVE APPLICATION WITHOUT SMEARING

GENTLY pack into a pocket one, two or more tampons saturated with Mercitan Fluid. You are certain then that the fluid is reaching the infection. After two or three minutes remove tampons. The tissues will be distended away from root of tooth. You can actually see if any more deposits remain below the gum to irritate and retard progress.

Also effective for applying Cream in same way to pockets and crevices. A very important factor in success. Price 90c. per box of approximately 3000.



DUAL PURPOSE STELLITE INSTRUMENTS

THE applicators A and B (anterior and posterior) serve two purposes: to apply fluid and cream; and also as sensitive explorers to locate serumal deposits. The miniature spatula is primarily designed for filling celluloid injectors with cream. It may be used too as an applicator to pack unusually large pockets with cream.

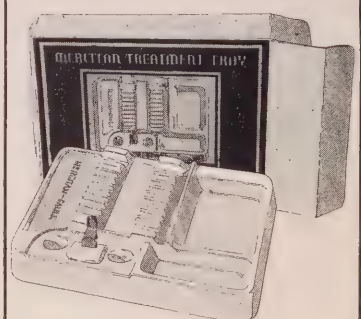
$4.00 per set of three, or $1.50 each (new prices.)

Price 60c. per tube or 3 tubes for $1.50.

For Heavy-Duty Cleaning in the Mouth

Most Convenient Kinds and Sizes of Absorbents

PACKAGE specially prepared by J. & J. for Mercitan Treatment. Cotton rolls, cotton pledgets and cottonoid blotters—all just *right* for your convenience in treating. Price $1.05 per box, wrapped in waxed paper for sterility.



For Neatness and Efficiency

EVERYTHING for Mercitan Treatment can be made ready on the Tray, then quickly cleaned and sterilized for the next patient. The spring clip holds a cottonoid pad for wiping instruments. Price $3.65.

EXPLODED SILICATISMS!

(*Continued from Page 9*)

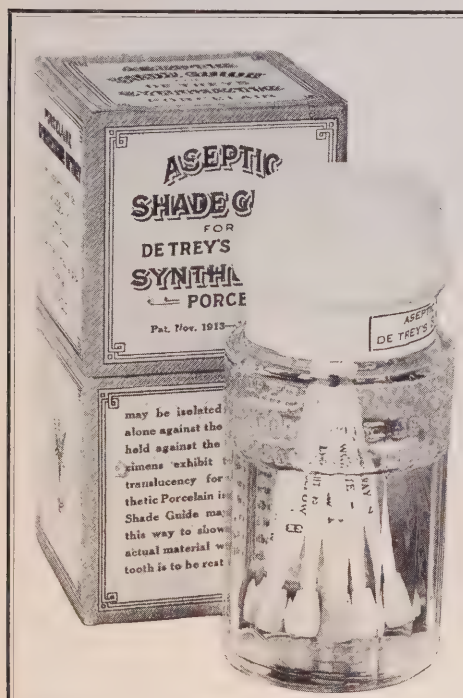
This brought out an hour's discussion on blending of shades by the shade chart system inaugurated at the Caulk research laboratory. A demonstration showed the simplicity of matching teeth exactly and uncovered the fact that other silicates numbered like Synthetic Porcelain are entirely different in shade and for that reason can not be blended by the Caulk system.

It also brought out the fact that Synthetic Porcelain owing to its freedom from metallic contamination is the only translucent filling material which does not discolor in the mouth. It was also shown that other silicates do discolor, some slightly, and others so badly that light shades become brown overnight in hydrogen sulphide solution.

The meeting broke up late with a parting shot from one of the visitors which is pretty sound advice to carry on.

"It seems to me that the dentist invites failure himself by taking on every new silicate that comes out, accepting far fetched claims for superiority without intelligent questioning. He proceeds with the use of these materials in a slip-shod way because the sales agent offering them encourages careless work by making absurd claims about the fool-proof character of his product. I think we serve best by using material which has stood the test of time, following carefully the standardized procedure recommended.

"Wisdom is knowing what to do next, skill is knowing how to do it, and virtue is doing it."



You need only to take the Synthetic Porcelain Shade Guide from its bottle of water to observe the natural translucency of Synthetic Porcelain restorations — neither too glassy nor too stony—and the life-like blending of shades.

This shade guide is truly a history of the constant quality that is maintained in this material. The guide which you buy today will match a package of Synthetic Porcelain made in 1911. Or the guide bought in 1911 (if properly taken care of) will prove equally accurate for the Synthetic Porcelain that is made today or will be made tomorrow.

A Book Review

DENTAL INFECTIONS—Two Volumes—Dr. W. A. Price

(*Continued from Page 8*)

nimbleness and are of such far-reaching significance on the basis of comparatively slight experimental evidence that little confidence may be placed in them. Both the evidence and the conclusions require confirmation by independent, competent investigators.

"The volumes are profusely and elaborately illustrated by original photographs of both gross and microscopic material; there are numerous diagrams and many elaborate tables. Both volumes are carefully indexed, and at the end of volume II there is a short bibliography."—*Reprinted from Journal American Medical Association, February 6, 1926*

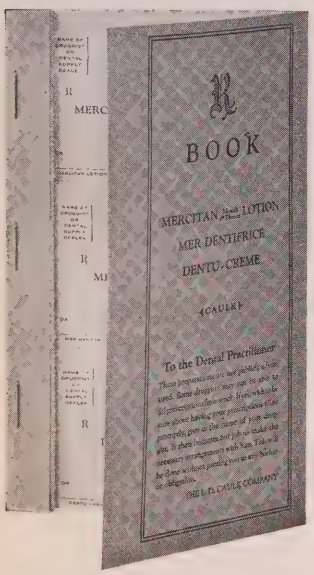
Plaster models illustrating the construction of gold fillings with Synthetic Porcelain facing

Combination Restorations of Synthetic Porcelain and Gold

Wherever conditions permit, good practice indicates the cutting of one or more windows through the inlay so as to take full advantage of the tranlucency of the Synthetic Porcelain. Hard gold and of the lightest color is the most suitable for the inlay.

IN the successful treatment of periodontoclasia the attention of the patient must be centered upon keeping the mouth in a thoroughly hygienic condition.

There's a dignity about the written prescription which really obliges your patient to strictly follow instructions for effective oral prophylaxis at home



COPY FREE ON REQUEST

Mer Dentifrice used daily with the correct brushing of the teeth and vigorous massaging of the gums in conjunction with *Mercitan Lotion* provides for a safe, effective, and decidedly pleasant oral prophylaxis

MERCITAN *Mouth & Throat* LOTION
MER DENTIFRICE

PRESCRIBE THE THREE-TUBE PACKAGE AND EIGHT-OUNCE BOTTLE FOR A LASTING SUPPLY

Printed in Canada, THE L. D. CAULK CO. OF CANADA, LIMITED, 172 John Street, Toronto

THE ARMAC PRESS LIMITED
TORONTO, CANADA

Correct Manipulation of Amalgam

COPYRIGHT, APRIL 1926, BY THE L. D. CAULK COMPANY, MILFORD, DELAWARE, U. S. A.

CANADIAN EDITION

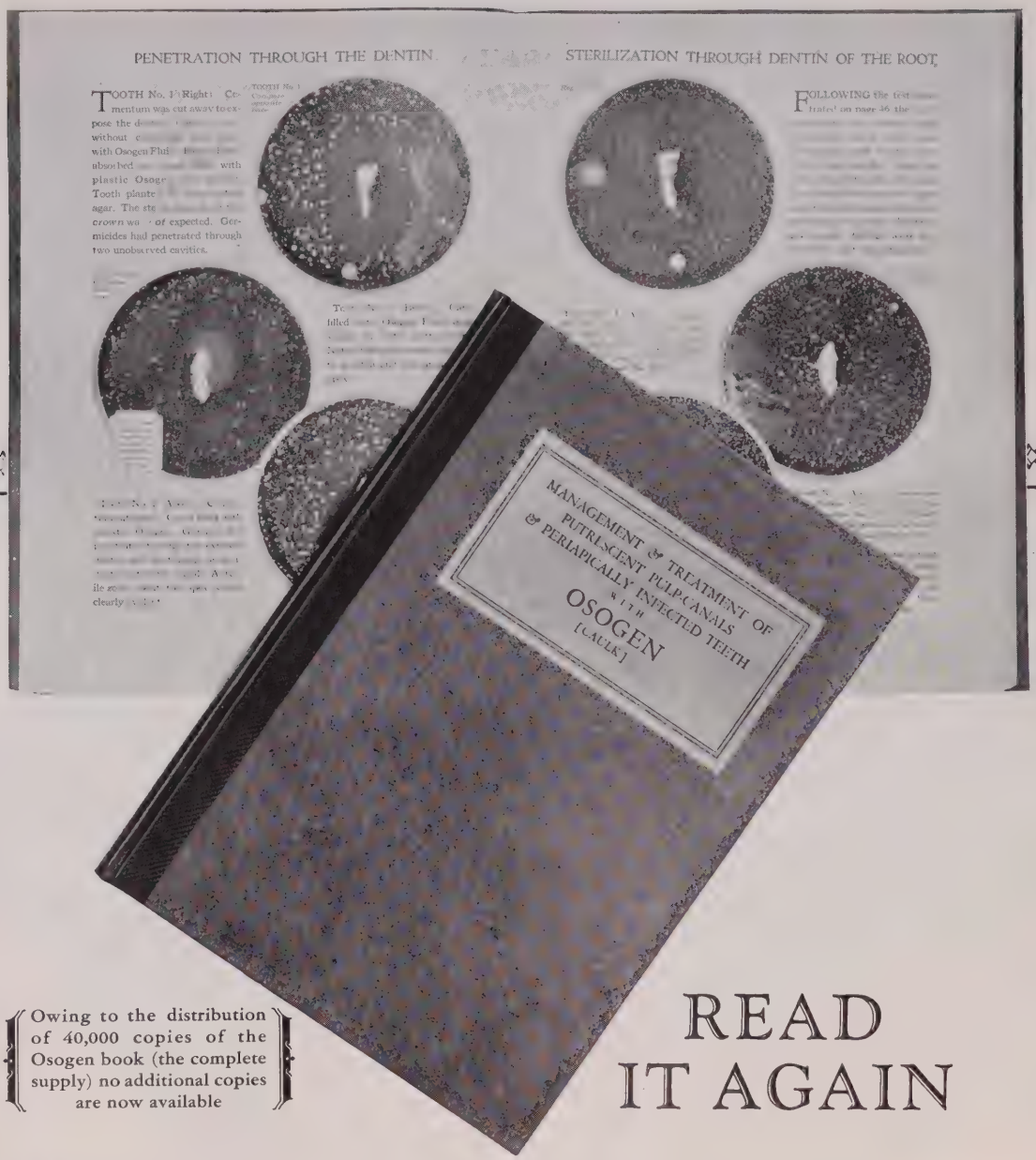
MILFORD NEWS

NUMBER
55

Dental Edition
70,000

Also in this Issue

Extensive Anterior Restorations with Synthetic Porcelain



Owing to the distribution of 40,000 copies of the Osogen book (the complete supply) no additional copies are now available

READ IT AGAIN

HERE is the book which greatly stimulated scientific investigation and clinical study of root-canal therapy. It set a new standard. It renewed faith and hope in the pulpless tooth. It dealt a staggering blow to the precepts of unnecessary extraction.

The facts presented and statements made in this book have been repeatedly subjected to the most severe tests during the past two years. They have been shown to be correct. Not a single fact has ever been successfully refuted.

In fact, these critical investigations have actually strengthened the statements made in this book. Just another proof of the profound thoroughness with which the research on Osogen was carried on.

In view of the renewed interest in root-canal therapy, we suggest that you carefully read again your copy of the Osogen book. If you are using Osogen already, then a second reading will help you. If you have not yet started with Osogen, then the book will be as fresh and interesting as when first published.

It will give you the reasons why Osogenation is the most scientific and practicable method in use at present for salvaging pulpless teeth.

CORRECT MANIPULATION of Amalgam

THE setting of Twentieth Century Alloy (amalgam) may be controlled by a simple method of manipulation. Expressing the excess mercury hastens the setting; leaving it in the mix retards setting. Therefore, when the mix has been completed do not express mercury from the mass.

Instead, take small portions as required and express the mercury from each portion just before packing it into the cavity. As the pressure of packing brings mercury to the surface wipe it away.

By this method setting can be kept under control for quite a long time. Even after the amalgam begins to set it will do no harm to add a trace of mercury and knead the mass until it again becomes plastic.

The setting time of the amalgam does not depend upon the quantity of mercury used in amalgamating, but upon the quantity that is squeezed out. The more mercury squeezed out, the faster the amalgam sets.

The sizes of the portions loaded into the amalgam carrier are governed by the size of the cavity and the judgment of the operator. Best adaptation is obtained by adding small portions of amalgam containing successively smaller quantities of mercury and then stepping each portion. Also better amalgamation and condensation are obtained by following this method.

Failure to harden properly is probably caused by failure to remove excess mercury from the filling. The crushing strength of fully hardened amalgam from Twentieth Century varies from 40,000 to 80,000 lbs. per sq. in., depending upon the pressure used in packing it and upon the temperature of the amalgam at the time it is tested.

The strength of the filling depends partly upon the material, and partly upon the way the filling is made. An amalgam from a low-grade plastic alloy can not make a filling with strong margins, because such a filling is weak and plastically deformed (flows) under the stress to which the filling is subjected during mastication. Neither can a strong amalgam be made from a good alloy that is improperly manipulated.

1343-I (*above*)
Load a portion of amalgam into amalgam carrier

1343-E (*below*)
The proper way to hold amalgam carrier. Note amalgam protruding from tip of carrier when plunger is compressed

Some common faults of manipulation are:

(*a*) Trying to pack an amalgam that is too crumbly owing to either insufficient amalgamation, over-trituration, expressing excess mercury from the amalgam too long before packing, or allowing the setting to proceed too far before packing.

(*b*) Failure to fill a cavity to

(*Continued on page 6*)

Here are Countless Brands Setting Forth as Many Popular Claims

But

What Brand of Tooth-Paste Should I Prescribe?

Popular claims, coined to appeal to popular but erroneous beliefs, are not safe guides in the selection of a perfectly satisfactory tooth-paste. Every professional dentist knows this.

What are the mouth preparations used at home by your patient?

After you have put the mouth in good condition how do you advise your patient about keeping it so?

Does some uninformed drug clerk substitute popular claims for your sound professional advice.

If you fail to decide or neglect to decide how your patients shall care for their mouths at home then some one else must decide for you.

No dentist who has thought at all about the subject or who has read the flagrant claims on counter cards in drug stores can possibly believe all tooth-pastes are alike, either in their effect or lack of effect.

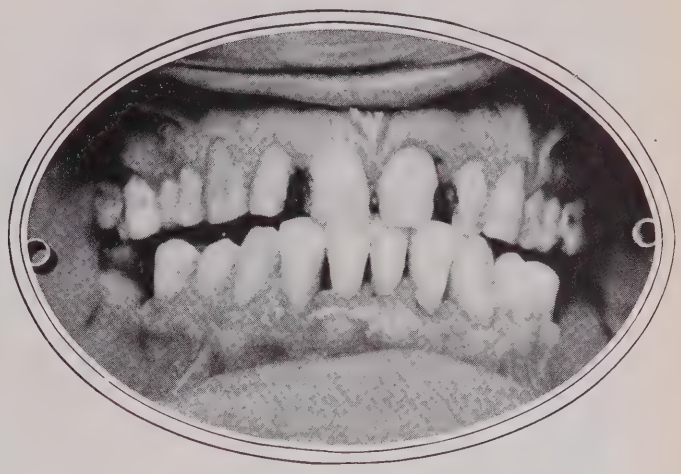
Mer Dentifrice was made for dentistry first. It meets all of your professional requirements in effectively cleansing teeth, without chemical or mechanical destruction to tooth structure.

Prescribe

MER DENTIFRICE

Practicality of Synthetic Porcelain

in Extensive Anterior Restorations Illustrating Correct Technic



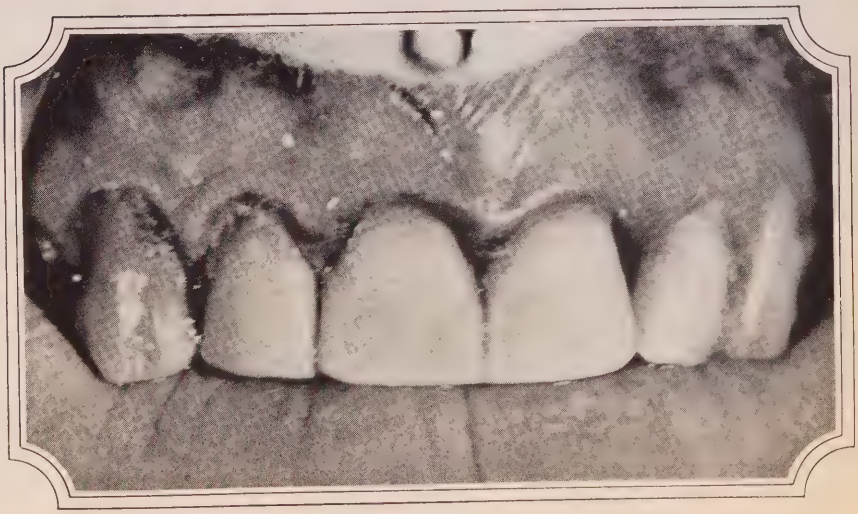
Photograph 1

Shows the upper four anteriors in a badly broken down condition. Several dentists have patched and repatched these teeth

Photograph 2

Shows the mouth a short time after another unsuccessful attempt had been made to restore the teeth. The mistake in this instance was that the gold fillings supporting the Synthetic Porcelain in the laterals had not been constructed strong enough considering the type of bite. The two centrals were built up with Synthetic Porcelain fillings. However the cavity outlines crossed the incisal edge at a right angle. Also the cavities did not have enough retention to hold the fillings

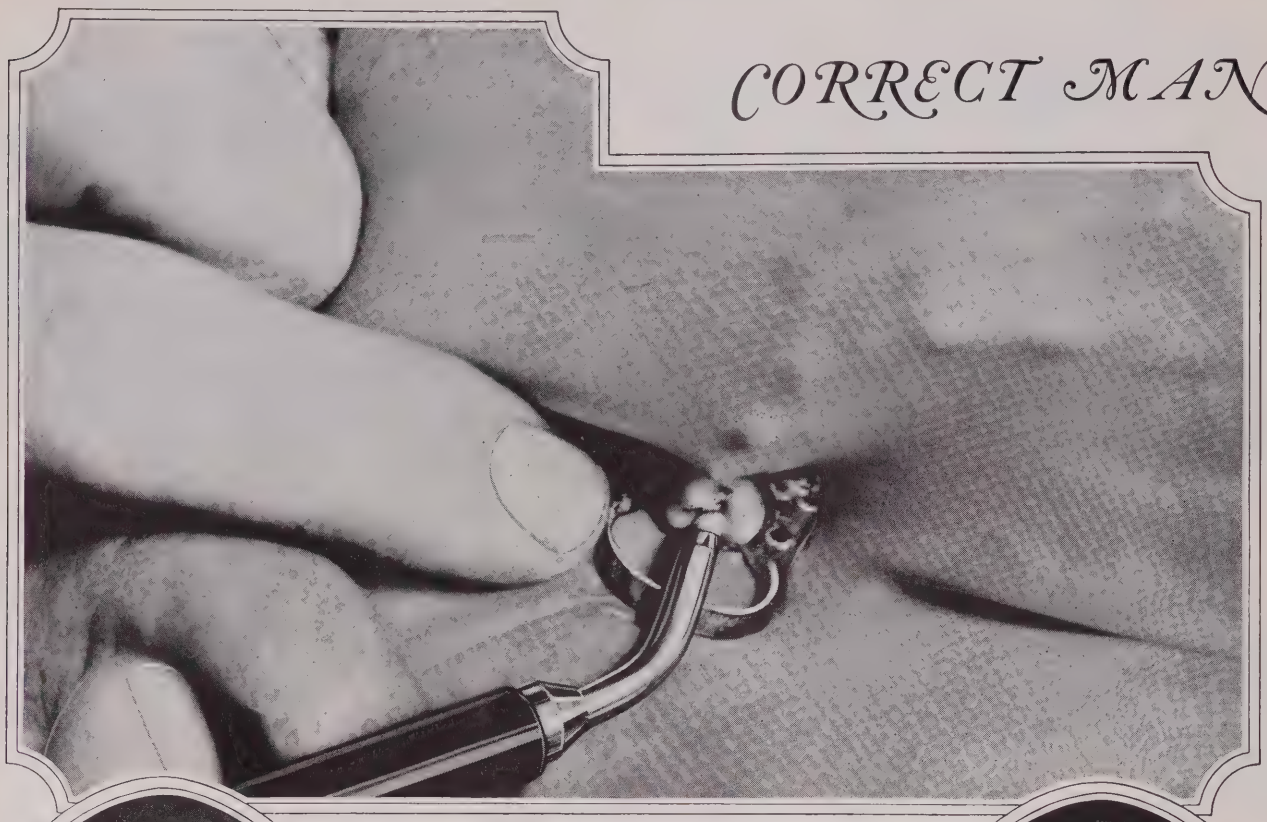
Immediately after the Crown Form has been filled with Synthetic Porcelain and placed into position on right central. Note the excess at the gingival margin and incisal angles



Photograph 3

Shows the teeth restored at the Caulk Clinic using Synthetic Porcelain and gold in combination to build up the laterals, and Synthetic Porcelain alone to build up the two centrals. During cavity preparation it was found that there was considerable unsupported enamel, especially in the centrals. Therefore, about three millimeters of the incisal edge of each tooth was removed. Then proper retention was made. The cavity was lined with Repelac and the teeth restored by the aid of celluloid crown forms. A celluloid crown form was also cut to fit the mesial angle of each lateral to obtain the correct contour. This case clearly illustrates how to prevent failure because of incorrect outline. It is essential to have at least two millimeters of filling material over the incisal edge to give bulk for strength

CORRECT MANIP



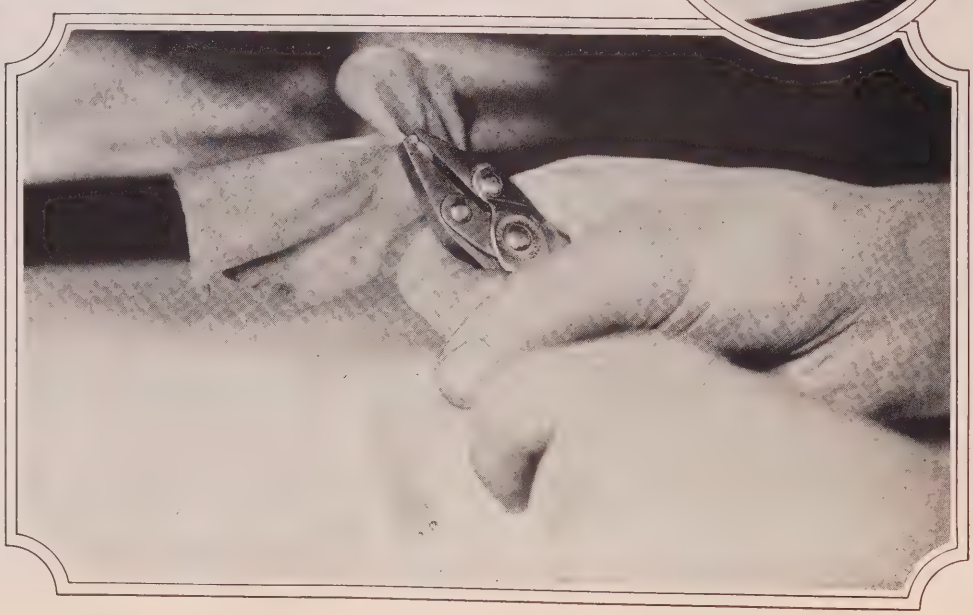
1343-A Shows the ease of placing amalgam in an upper posterior cavity with Caulk amalgam carrier

1343-D

After the first portion has been placed more mercury should be expressed from the second portion. Place portion of amalgam to be used on chamois skin

1343-G

Express the mercury using finger pressure



1343-F

The last portion of amalgam placed should be quite dry. The mercury is expressed through chamois by using parallel pliers

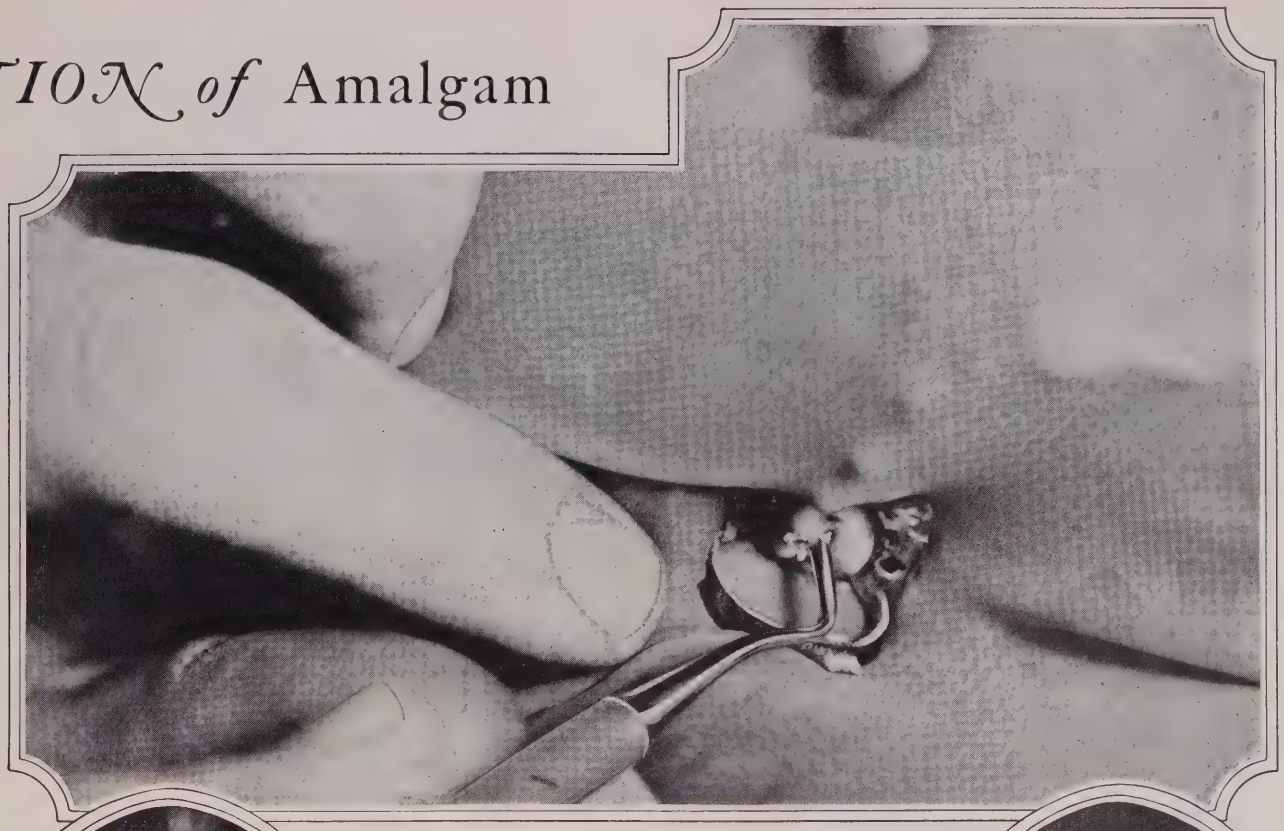
(*Continued from page 3*)

excess and pack this excess as hard as possible, so as to obtain well condensed amalgam from which later to carve the margins.

(*c*) Burnishing the amalgam over the margins. This is bad

(*Continued on page 7*)

ATION of Amalgam



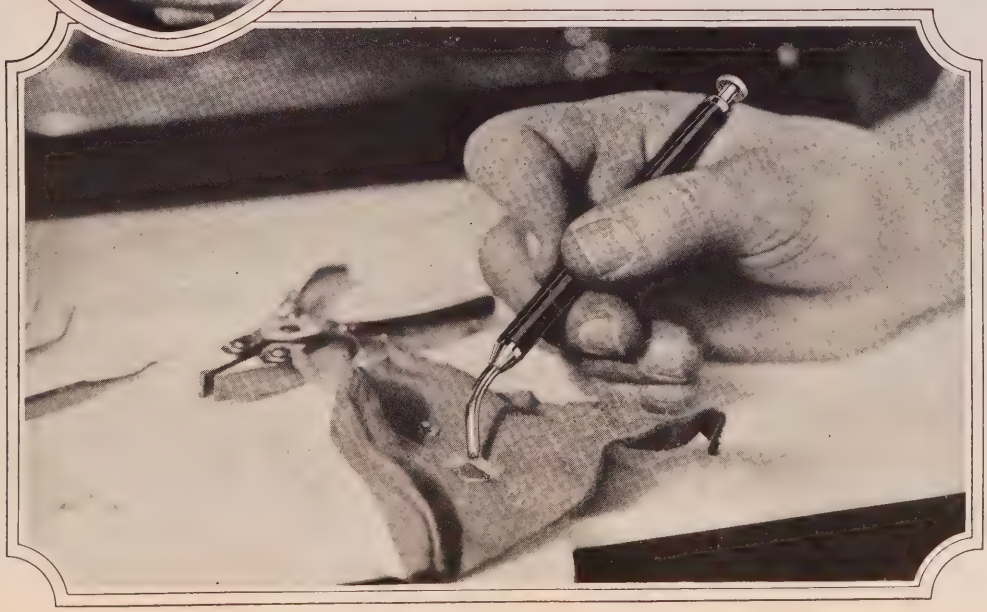
1343-B Shows a Caulk Stellite amalgam instrument stepping the amalgam immediately following the placing

1343-K

The chamois pulled back to show the expressed mercury. By a flicking motion chamois is freed of mercury

1343-H

Load carrier again with amalgam from which mercury has been expressed by finger pressure



1343-M

Load carrier with the final dry portion of amalgam preparatory to finishing the last step in filling

(*Continued from page 6*)

practice since it leaves an excess of mercury and un-dissolved particles at the margins. Subsequent division of the mercury causes porosity that weakens the margins of the filling, leaves the filling rough and therefore leaky.

When Spring Comes

Can blisters, scratches and cuts be far behind? Most every professional man has a plot of ground to work in the springtime. It may be a garden, a lawn or a flower bed. At any rate no matter what kind of a hobby he may indulge in, if he is pruning, cutting grass, digging in flower beds or doing heavy work, then scratches, cuts and blisters are inevitable.

Mercirex is ideal for healing and preventing infection. For cuts, scratches, contusions, lacerations and burns it is uncommonly effective.

Also, it is excellent for insect bites and the treatment of poison ivy and other plant poisons.

Mercirex not only brings swift and pleasing relief but it keeps wounds free from infection during the entire healing process.

Keep this dependable surgical dressing always in your cabinet.

Prices

Complete Treatment

Complete Treatment Package, including two cakes Mercirex Soap . . .	$1.25
Mercirex Cream alone, regular size jar	.75
Hospital Size . .	3.00
Mercirex Soap, box of three cakes .	1.00

MERCIREX

[CAULK]

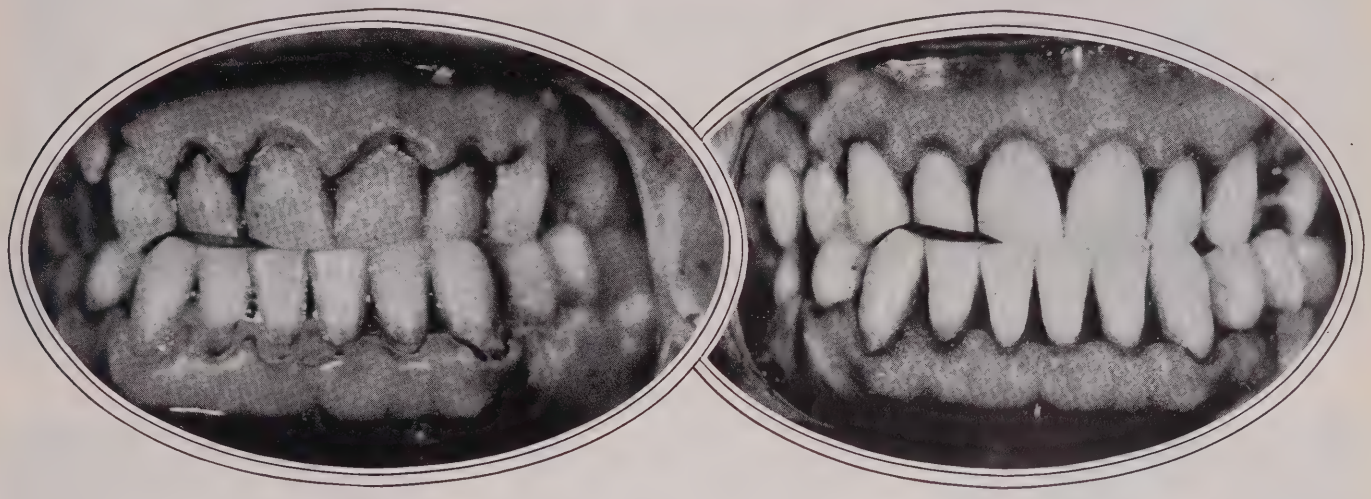
Six Ounces at the Five Ounce Rate

In Caulk Copper Amalgam you have pure copper and pure mercury. The thorough kneading, triturating and washing processes carried through during manufacture remove all copper oxide, copper sulphide and other impurities.

Consequently you may depend upon it that the purity of Caulk Copper Amalgam makes it much smoother and from twenty-five to fifty per cent stronger than any other. At the same time this absolute purity causes it to amalgamate more rapidly and set faster in the mouth.

Speed of setting is an extremely valuable property in filling deciduous teeth. In short Caulk Copper Amalgam is by far the best amalgam that can be made of copper and mercury.

The price of the six ounce bottle is $5.50 or at the regular five ounce rate



Vincent's Gingivitis Successfully Treated with Mercitan

Case No. 484. Mr. J. B. T., age 37, height 5 ft. 11 in., weight 181 lbs., occupation, road builder. General health good. Patient presented with a very sore and badly inflammed mouth.

Photograph 1276-A shows the condition of the mouth before starting treatment. Note the ragged edge of the gum margins especially about the lower anteriors. The space between this ragged edge and the tooth was covered with the gray membrane typical of Vincent's gingivitis. Upon touching this membrane the tissues bled very freely and the patient complained of severe pain. Hot and cold foods or drinks caused considerable pain.

Upon examination of the throat a large ulcerated patch was found on the left side of the soft palate.

Before treatment was begun smears were prepared from material taken from the following regions: upper and lower anterior, upper right posterior, upper and lower left posterior and also from patch about 2 centimeters in diameter on the left side just posterior to the hard palate.

Microscopic examination revealed the presence of numerous spirochetes and fusiform bacilli as well as many leucocytes and cellular debris. There was a decided preponderance of the fuso-spirilliary organisms over the ordinary mouth bacteria.

It is interesting to note that the smear from the patch on the soft palate showed an almost pure culture of the fuso-spirilliary organism.

First treatment—Patient rinsed the mouth repeatedly with 3% hydrogen peroxide. This preliminary treatment removes the pseudo-membrane, thereby exposing the deeply infected tissues to the direct action of the treatment to follow. Next, strong Mercitan Fluid was applied to all surfaces of the gum where ulcerated.

All other portions of the mucous membrane were protected by cotton rolls.

The fluid was applied by wrapping cotton around the fluid applicator and using this as a brush to paint the tissues. It is impossible to do prophylactic work on a case of this type at the first sitting.

The patient was dismissed with instructions to rinse the mouth every two hours with undiluted Mercitan Lotion.

Second treatment—The first treatment repeated and in addition the ulcerated parts were treated with a Mercitan Cream poultice made by applying the mild cream over the affected part and then covering the cream with bibulous paper. The cream was allowed to remain five minutes and then removed.

Third treatment—Smears taken at this time showed considerable reduction of the number of spirochetes and fusiform bacilli. Also the general condition of the tissues corresponded to the improvement in the microscopic picture.

The lower anteriors still showed some ulceration. These were treated with the strong fluid and all other parts affected to a lesser degree were treated with strong cream.

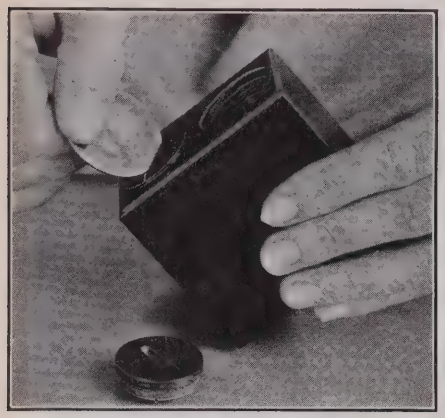
Fourth treatment—Smears were again taken from the same locality. Examination of many microscopic fields failed to reveal the presence of pus cells and only a few scattered fuso-spirilliary organisms were found. The microscopic picture was essentially that of a normal mouth. This corresponds to the photograph made at the last sitting as indicated in 1276-B. The general tonicity of the tissues has been re-established and the patient discharged as cured of the infection.

One of the features that make Mercitan Treatment so successful is the

SPEED

with which results are accomplished. No matter what method of prophylaxis or surgery may be considered necessary and employed by individual operators, Mercitan will eliminate infection and heal the tissues with a rapidity never before observed with any other therapeutic agent.

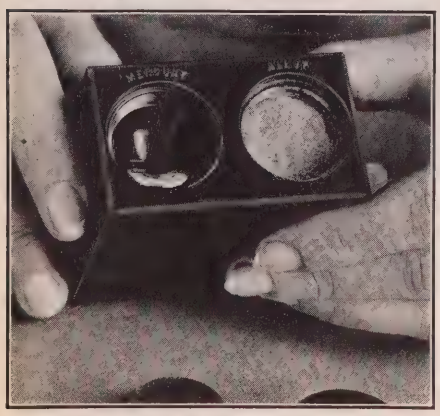
Less time is required, but the value of the service is *not* less.



1 *Remove covers from both wells*

2 *Twentieth Century Alloy Filings in left-hand well*

3 *Twentieth Century Mercury in right-hand well*



4 *Gage full of Alloy and Mercury*

MEASURE *and* MIX

in Less Than a Minute

EACH stroke of the plunger delivers just enough Alloy and Mercury for one small filling, in correct proportions. The measuring is automatic.

One ounce of Twentieth Century Alloy Filings fill one side of the Gage. The other side holds a quarter pound of Mercury.

Spilling is impossible. Alloy and Mercury both are kept air-tight and dust-proof. Waste is prevented. The Gage soon pays for itself in Alloy saved.

Amalgam is made stronger and denser by any procedure that more intimately unites the Alloy and the Mercury. Its strength can be greatly increased simply by thorough trituration.

In less than half a minute the Mixer combines Alloy and Mercury more perfectly than can be done in six minutes by hand.

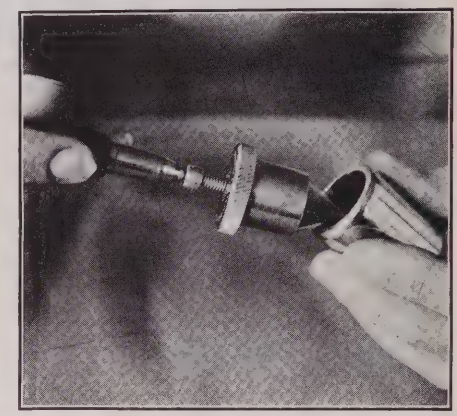
Caulk

ALLOY-MERCURY GAGE *and* AMALGAM MIXER

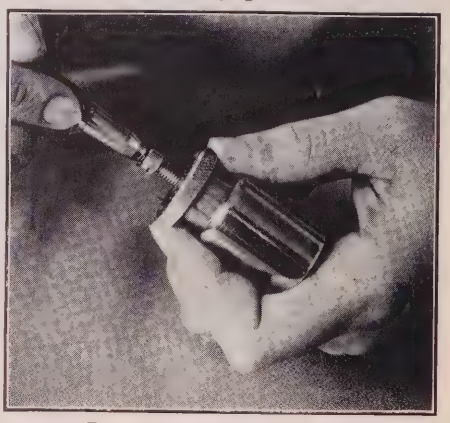
Gage, $7.50
Mixer, $5.00

5 *One stroke of the plunger*

6 *Correct proportions of Alloy and Mercury delivered into the cup*



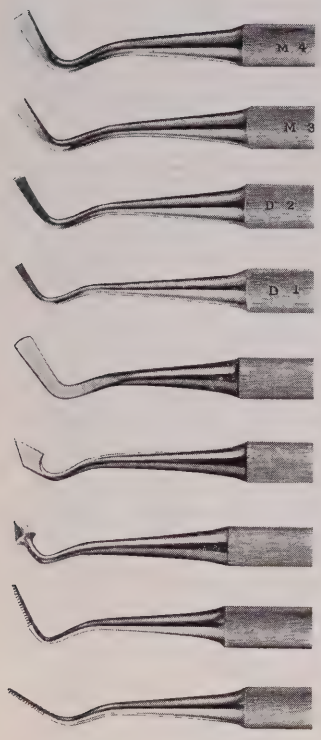
7 *Plug of mixer in which rotating shaft revolves is suspended in cup by thumb and finger*



8 *Press against spring to raise and lower mixer as it revolves in cup*

9 *Empty the completed mix upon a clean dental napkin*

10 AMALGAM INSTRUMENTS INSTEAD OF 200 10



I They are shorter than other double-end instruments, yet the haft is longer and thicker.
You get greater pressure with less effort.

II The packing faces are made triangular to fit the angular shapes of most posterior cavities. The faces are smooth, not serrated. Clinical tests show that smooth instruments give the amalgam greater strength and density.
You can burnish the amalgam to place and force it tight against the cavity walls.

III A cavity can be completely packed with one instrument alone.

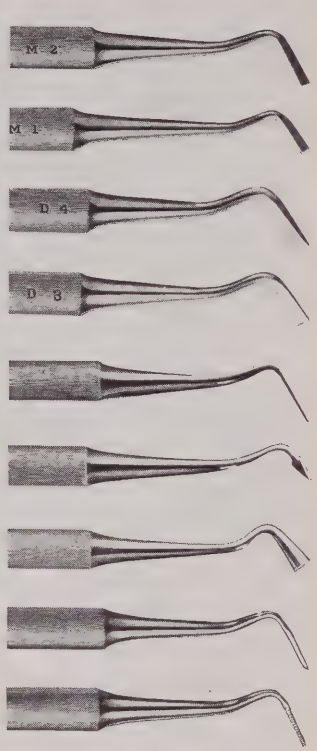
IV With either of the two blades of the carver any acute or obtuse groove can be cut in any direction.
You can start and finish the carving of any restoration with this one instrument.

V The cone-shaped end of the burnisher is the same size as the triangular blade of the carver, and it is set at the same angle so that it will fit and burnish to the bottom of any groove the carver has cut.
You can burnish sulci and occlusal depressions, the approximal margins other burnishers will not touch.

VI The plastic instrument rapidly clears and smooths the interproximal surfaces, and shapes the filling.
You will find this the best plastic instrument to use with other plastic materials also.

VII The trimming files are rigid but thin. They will reach surfaces that cannot be reached with strips or disks and they will not damage margins.

VIII The amalgam carrier is much simpler than any other. The plunger is free in the barrel. There are no parts to unscrew or adjust. It will not become clogged. The spring acts vigorously. The finger rest can be set to suit the hand.
You can pull out the plunger, clean it, and put it back as quickly as you can read this sentence.



PICK up any catalogue of dental instruments, turn to the amalgam instrument section and you cannot fail to find an unrelated repetition of shapes, sizes and designs that conform to no unified system, but result from many separate and unassociated ideas grown up through several different periods of amalgam technique, and now practically obsolete. Many of these instruments now have become a mere collection of individual designs, changed, added to, needlessly multiplied and duplicated until their original purposes have become lost in the general advances that have been made in perfecting the modern amalgam restoration.

Amalgam practice today differs from the old ways. Alloy is available now that is stronger, cleaner and easier to work with than the old method materials. The common "fifty-cent silver filling," that simply plugged the cavity, is being rapidly superseded and replaced by the Twentieth Century Amalgam restoration with its anatomical form, permanently bright color and lifelong masticating service.

Caulk Amalgam Technique covers this modern field of service through practical methods based not on chair-theories or scissors-and-paste opinions, but upon definite scientific research and clinical data.

This brief outline given here is limited to a description of the set of ten Caulk Amalgam Instruments now made in Stellite, with special attention to the specific purpose for which each instrument is intended.

This set of ten instruments will do all the work of the two hundred or more amalgam instruments commonly listed in dental catalogues. They are designed to accomplish the greatest amount of satisfactory work with the fewest instruments and with the greatest efficiency in time and ease of use. Each instrument has a specific purpose in relation to the whole purpose of the set.

These are the principal characteristics of the instruments, considered as a set. Many of these features are new and original, on which patents have been granted.

A Chronicle of Progress Gained Solely on Merit

TRUTH sometimes seems unreasonable—frequently impossible. In these instances unmistakable, concrete evidence must be presented to convince.

The photographs herewith tell a story in a most convincing way.

Five years ago Mercitan Lotion entered a highly competitive field. At first glance there seemed to be no room for another mouth wash.

Naturally, the manufacturing equipment necessary was not elaborate. A corner of a small room provided ample space and to spare.

There is one factor though in the origin of Mercitan Lotion which appeals to dentists—that is, it was made for *dentistry first* to be recommended and prescribed by dentists.

You did not see it publicly advertised. Only dentists learned about it through dental channels.

Today Mercitan Lotion is manufactured in a new plant completely equipped with every modern facility. Oftentimes this huge plant is even taxed to the utmost to keep abreast of the orders.

Obviously there can not be a more faithful barometer registering professional approval than the steady arrival of orders from dentists in successively greater numbers.

May we suggest that you too

Prescribe

MERCITAN Mouth & Throat LOTION

Printed in Canada, THE L. D. CAULK CO. OF CANADA, LIMITED, 172 John Street, Toronto

THE ARMAC PRESS LIMITED
TORONTO, CANADA

OSOGEN IN PULPECTOMY

COPYRIGHT, MAY 1926, BY THE L. D. CAULK COMPANY, MILFORD, DELAWARE, U. S. A.

CANADIAN EDITION

MILFORD NEWS

NUMBER
56

Dental Edition
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Also in this Issue

ANNOUNCING NEW MINIMUM OSOGEN OUTFIT

How To Apply Mercitan Cream By Poultice Method

Why Is Synthetic Porcelain So Successful?

Why Is Synthetic Porcelain So Successful?

FORMULA alone is not the secret. Scrupulous care in manufacture is only one chapter of the story. Detailed and truthful instructions to the user make only one link in a long chain.

Said the poet, "One swallow does not make the summer."

Likewise, *one* property does not make a good filling material.

Glue is supreme in the one quality of adhesiveness, but we do not fill cavities with it.

Diamonds are hard, but useless in dentistry.

Any number of materials might be mentioned that rest their claims to the dentist's attention on one good feature —like lame ducks standing on one leg.

One good feature in a dental filling material is as lonesome and as useless as one walnut rolling around in a barrel.

No less than eight combined properties are necessary in the satisfactory translucent restoration:

1. Strength to resist mastication.
2. Hardness to resist wear and erosion.
3. Density—fine-grained structure.
4. Impermeability to oral fluids and medicaments.
5. Constancy of volume, like natural dentine.
6. Translucency like natural tooth-enamel—neither more nor less.
7. Permanent shades that blend perfectly.
8. Adhesion to dentine.

The secret of success in this kind of work is in this vital combination of the eight essential qualities—like a chain of eight links.

It is this *combination* of qualities that makes the genuine Synthetic Porcelain restoration, as distinguished from all the other kinds of translucent fillings.

The properties of Synthetic Porcelain are a matter of scientific record, based on facts and figures, not on hopes and promises.

There is only one Synthetic Porcelain. Only one material is entitled to be called by that name. Caulk makes it in U. S. A.—no one else.

As makers of Synthetic Porcelain, The L. D. Caulk Company has plenty of responsibility on its own job and plenty of information to give about its own material, and therefore has nothing whatever to say about any material except its own. False statements put out by competitors are consistently ignored—especially those that are spread by word of mouth and that are *not* put in print. In most instances these absurdities refute themselves sooner or later—at the expense of the *purchaser*.

OSOGEN IN PULPECTOMY

Poisoning tissue with arsenic is no longer necessary. Simple operation, completed in one sitting, conserves apical tissue and saves time.

"TELL me what I can use to stop pericementitis following devitalization with arsenic," asked a nervous impatient New Yorker who let most of our discussion of root canal therapy take the air as though he were not in tune with our station.

"Don't use arsenic," we snapped back, more with the idea of getting a rise out of our friend than to create offense.

"But how can I run a busy practice without it?" he wailed.

"It is not necessary to have a grain of arsenic in any dental office today no matter how many patients present for treatment," we insisted. After a few more verbal tilts, which created a ripple of laughter among our audience, we finally managed to get in a word—Pulpectomy!

"Oh! that fancy stuff is all right for the big fee class who need stunts like surgical removal to collect. I see the average run of patients who have no money for frills," he flared back somewhat pleased with the effect of this little speech on some of his colleagues.

"Don't be misled by the name. It's the game we're interested in. If pulpectomy were known as Rosie O'Grady we would recall the sweet smell of L'Origan instead of ether. Pulpectomy is a good descriptive name meaning removal of the pulp, and so distinguishes from mummification."

"I can see that removing the pulp directly, instead of killing it with arsenic first and then removing it, is the sensible thing to do. It is way ahead of mummification or embalming. But how about the cost to the patient?" asked one of our hearers who sided a little in our favor.

"Well," we went on to explain, "the cost should be no more than if arsenic were used. In fact less, because it takes less time. But the job is worth infinitely more. We do not have to wait for the arsenic to kill the pulp before removing it. We sever the pulp, dress the wound, fill the canal directly, and place the permanent filling all at one sitting."

Operating table used in performing pulpectomy operations on animals. Ether is administered warm and the body of the animal is kept warm by electrically heated copper plates

"Do you remove all the pulp? I had a hazy idea that the pulp could be amputated at any position even up to the floor of the pulp chamber," asked a fellow who showed deep interest in root canal therapy.

"We remove all of the pulp," we replied. "That is, we sever the pulp at the dento-cemental junction by wrapping a broach about the pulp and yanking it out. It invariably breaks off at the weakest point. We never attempt to remove the pulp at the extreme apex but allow that to function in sealing the foramina. Our experiments on dogs show that amputation well up in the canal is never successful."

"Why it looks reasonable," said one of our friends addressing our first interrogator. "If we had an infected toe and there was no hope for it we would not try to rot it off with arsenic before severing it. We would have it amputated at once."

"Sure I see it now but I never thought of it in that way before," he replied.

"It is reasonable and practicable," we added reassuringly.

"Well if you can do that as easy as you say it, I am from Missouri," said our original heckler.

"Very well, we will try to explain this pulpectomy. Really, it is a wonderful preventive operation capable of saving many teeth from serious infection. It is the first step in salvaging the pulpless tooth. Instead of using arsenic or other tissue destroying drugs, which so frequently lead to focal infection, why not use this new preventive method which harmonizes with our modern ideas of preventive medicine?" we remarked before launching more deeply into the question.

"We prefer to use the term pulpectomy instead of partial pulpectomy even though we realize that complete removal of the pulp is impossible under practical conditions because of the presence of multiple canals. Partial pulpectomy is apt to be confused with amputation at any position from the apex to the floor of the pulp chamber.

"Our experience, clinically, and experimentally on dogs, has shown that amputation of the pulp well up in the canal is generally followed by strangulation and atrophy of the remaining pulp stump. This is partial pulpectomy.

"By pulpectomy, we mean practically complete removal of the pulp; that is, amputation or severance near the dento-cemental junction. The fundamental idea is not to attempt to maintain vital pulp stump within the main foramen but to maintain vital tissue in the branch canals thus protecting the periodontal membrane which folds into the apical end of the canals. Therefore, the ideal place for amputation is about one milli-

(*Continued on page 5*)

MER DENTIFRICE

BACK of the growing preference for Mer Dentifrice among professional dentists, stands performance. Back of that performance stands quality. Back of that quality stands a research policy in the Caulk Dental Research Institute that does not tolerate the slightest variation from accuracy.

Every ingredient in Mer Dentifrice is tested to the highest standards and every qualification is verified with the greatest precision.

You can depend upon a tooth-paste made like that. You can recognize the difference the moment you take Mer Dentifrice in the mouth. The more you use it personally the more convinced you will be that it will successfully stand all professional tests as all other Caulk products have in the past.

35c per tube
3-tube package $1.00

OSOGEN IN PULPECTOMY

(*Continued from page 3*)

meter from the root end.

"The pulp does not extend through the foramina. It ends a short distance from the one or more openings at the root end where it joins the periodontal membrane.

"Now the pulp is weakest in the constricted portion of the canal. Extirpation is easily accomplished by inserting a barbed broach to a little above this point, giving it a twist and then withdrawing the instrument. The pulp will break off and we actually sever it at its weakest point.

"Under no circumstances should an attempt be made to remove the remaining pulp in the main foramen because this would cause severe irritation and might injure the periodontal membrane so as to lead to its infection and destruction. Furthermore, there is no use trying to remove pulp tissue from the one main foramen since it cannot be removed from branch canals.

"We do not want this little piece of remaining pulp stump for itself, but we must leave it attached to the periodontal membrane so as not to injure the latter. Eventually the pulp stump becomes scar tissue which resists infection better than normal tissue.

"Pulpectomy is the first line of defense against periapical infection. If a tooth is broken off accidentally; if the pulp is accidentally exposed during cavity preparation; if for some unusual reason it is necessary to remove the pulp from a normal tooth; if the pulp is infected under fillings previously inserted without adequate dentinal sterilization; or if the pulp is infected and exposed through decay, we have the type of case for pulpectomy.

"Often in multi-rooted teeth we have one or more canals containing live pulp tissue. Here again, pulpectomy is indicated.

"We prefer to look upon pulpectomy as a separate and distinct operation from root canal therapy. Root canal therapy has to do mostly with dead pulps with or without apical involvement.

"Cases suitable for pulpectomy are not periapically infected. There is no requirement for regeneration of periapical tissue. The big thing about pulpectomy is that we get the tooth before infection or arsenic gets it. We have no focal infection dreads to deal with. Why let so many teeth go into the focal infection class when preventive measures are easily applied?

"Unintentional pulpectomy has been practiced for years. Many teeth from which the pulps were removed years ago testify to the possibilities and clinical success of pulpectomy. It remained for a number of research workers in the dental profession to discover microscopically what happened to the tissue remaining in the extreme apical end of the tooth and to indicate means whereby the operation could be made uniformly successful, like appendectomy. True, some went too far. We will not go into the historical questions which have been aired in the dental literature.

"Our study of this question revolved about a central idea. Is pulpectomy feasible and can it be made a uniformly successful operation like filling a cavity in a tooth?

"We found that the cause of failure were infection, injury to the peridontal membrane, strangulation of the pulp due to high amputation or to pressure, and filling the canal with improper materials.

"Infection and pressure were the prominent causes of failure which suggested the idea of experimenting with Osogen as of possible value in this operation. First there was work on dogs; then on human subjects. The operation proved successful in both dog and man. Let us consider some typical cases:

"Dog No. 7. Small, black and tan female about three years old. This animal was kept under observation in the animal house for about four months prior to starting the experiment. On December 20, 1924, she gave birth to seven live puppies. Part of this litter was

(*Continued on page 6*)

COMPOSITION *of* OSOGEN

OSOGEN FLUID contains magnesium chloride, potassium iodohydrargyrate, and water.

OSOGEN POWDER contains magnesium oxide, barium sulphate, mercurous chloride and di-thymol di-iodide.

SET OSOGEN contains:

Magnesium oxychloride, $Mg_2OCl_2 . 3MgCl_2 . 14H_2O$	52.19%
Barium Sulphate, $BaSO_4$	37.96%
Potassium iodohydrargyrate, $2KI.HgI_2$	5.38%
Mercurous chloride, $HgCl$	2.99%
Thymol iodide $(C_6H_2.CH_3.C_3H_7OI)_2$	1.48%
	100.00%

Portion of animal room in the pathological laboratory

(*Continued from page 5*)
raised to maturity. The animal was in a run-down condition while nursing the puppies but rapidly improved following weaning of the young.

"On April 16, 1925, when she was subjected to the experiment of pulpectomy, she was in very good condition. On this date the dog was anesthetized with ether by intratracheal intubation as radiogram No. 7-1 shows. This method permits proper isolation of the field and insures perfect anesthesia without the interference of intermittently stopping the operation and using a cone.

"Upper left corner incisor isolated and sterilized externally with tincture of iodin. Cavity cut with a sterile bur through the enamel and dentin to the pulp chamber. Pulp removed with a sterile barbed broach at the dento-cemental junction and placed in a tube of Dextrose Brain Broth. This culture was incubated for two weeks and examined at intervals during this period for growth. Transfers of this culture were also made to fresh media. No growth whatever occurred showing the pulp to be sterile. This, of course, shows that the operation was done under aseptic conditions.

"Considerable hemorrhage occurred, which was checked by the aid of Thromboplastin. A dressing of Eutone was then placed in the canal and allowed to remain three minutes, after which time it was removed with absorbent points and the canal immediately filled entirely with plastic Osogen. The excess Osogen was then removed from the cavity. A small filling of cement was placed over the plastic Osogen at the floor of the pulp chamber to isolate it from the amalgam filling which was then placed.

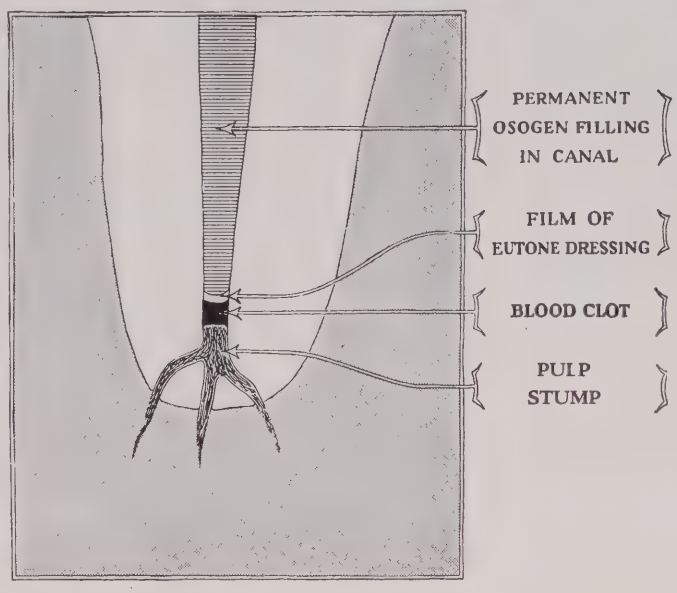


Diagram showing cross-section of pulp-canal in a vital case

"Radiogram No. 7-1 shows the corner incisor before the operation.

"Radiogram No. 7-2 shows the tooth immediately after filling the canal with plastic Osogen and the cavity with amalgam.

"In radiogram No. 7-3, six months later, note the apical tissues are the same as in radiograms 1 and 2. Canal filling and amalgam are intact. The tooth has been functioning normally.

"Radiograms Nos. 4A, 4B, 4C, one year after operation, are four different views taken at four different angles to show beyond any doubt the condition of the apical tissues. Radiogram No. 4A was taken at the same angle as 1, 2, and 3. The appearance of the periapical tissues is the same on all four films.

"A year after the operation this dog is in excellent condition and aside from the amalgam filling on the labial surface, the tooth has the appearance of a normal tooth. The animal will be held under observation for at least one year more, at the end of which time bacteriologic and histologic studies will be made of the tooth and periapical tissues.

"Case 550. Patient presented with a deep cavity in the upper left lateral. The pulp was exposed in excavating the decay. Pulp anesthetized by pressure anesthesia and removed to the constriction with a barbed broach. Thromboplastin was used to check hemorrhage. Eutone was next applied and allowed to remain five minutes. Excess Eutone absorbed with absorbent points and canal immediately filled with plastic Osogen only.

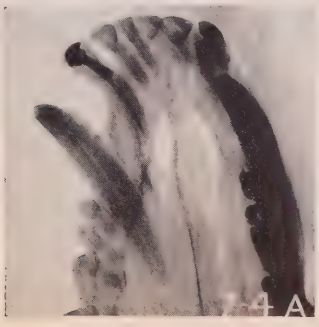
"Radiogram No. 550-1 shows the upper left lateral with a deep cavity in the distal and normal periapical tissues.

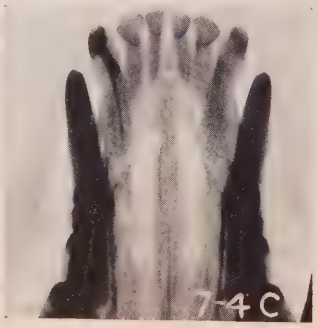
"Radiogram No. 550-3 shows the tooth immediately after filling the canal with plastic Osogen. This radiogram was taken at the same sitting as radiogram No. 1 since the operation was completed in one sitting. In this case the filling is short of the point of amputation.

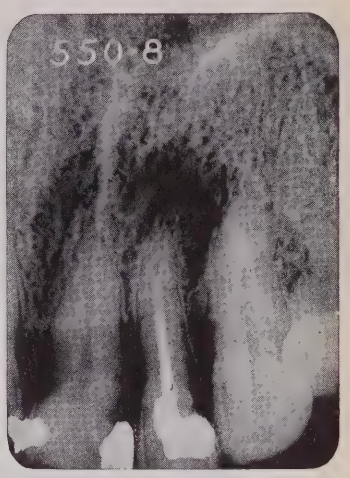
"Radiogram No. 550-5, one month later, tooth comfortable, no signs of inflammation or pathological changes.

"Radiogram No. 550-8, one year later, shows the lamina dura intact with normal periapical tissue.

"Case 951—Mrs. S. Patient referred to clinic with a case of Pulpitis (Passive hyperemia). Radiogram No. 951-1 shows periapical tissue normal. Rub-







ber dam placed, cavity excavated and dressing of Eutone sealed in. Patient dismissed for one week.

"On patient's return tooth was comfortable. The dam was again placed, field sterilized, and pulp chamber opened. Coronal half of canal contents removed and placed in culture media, which after incubation resulted in a mixed culture of streptococci and large rods (contaminants).

"A dressing of Butyn was then placed in the canal and by absorption rather than by using pressure the pulp stump was anesthetized. It was then severed at the dento-cemental junction. Practically no bleeding. The canal was then washed out and a dressing of Eutone placed for five minutes, after which time the excess Eutone was removed. A gutta-percha point was measured for the desired length as indicated in radiogram No. 951-2.

"Radiogram No. 951-3 shows the canal filled with plastic Osogen and the previously measured gutta-percha point replaced. Care was used not to make pressure against the pulp stump.

"Radiogram No. 951-4 shows the apical tissues to be normal with lamina dura intact and in the same condition as the first radiogram."

"How would you proceed in a case of exposure through decay, with pulpitis?" broke in one of those practical hardheads from Pennsylvania.

"We would clean out as much debris as possible and seal in Eutone. This mild anodyne is also antiseptic. After a day or so the pain will be relieved and we can then go ahead. Suppose we proceed with a complete description of the technique and if anything is not clear, then bring it up later?" we suggested.

"Go to it," chimed in several eager chaps, "we're here to learn."

"Pulpectomy is painless when carried out in the following way:

1. Treat the cavity only with FRESH ammoniacal hydrogen peroxide to prevent subsequent discoloration.

2. Anesthetize the pulp by pressure, nerveblock, or infiltration, etc.

3. Sever the pulp in region of the dento-cemental junction (at the constriction, or as close to it as possible).

4. Remove severed portion of pulp.

5. Stop hemorrhage.

(*a*) Do not use acids, caustic drugs or anything else that will disorganize the small blood clot which should be left over the pulp stump.

(*b*) Saturate an absorbent point in Thromboplastin, insert in canal, and allow to remain a few minutes. Thromboplastin stimulates the formation of the blood clot and stops the hemorrhage.

6. Dress canal with Eutone and allow to remain five minutes.

7. Remove excess Eutone with absorbent points. Never use Osogen fluid alone in the canal in cases where there is vital pulp since it is unnecessary. It would also cause pain because Osogen fluid is strongly hypertonic. The infection is limited to the dentin in the crown and coronal part of the root and is taken care of by the plastic Osogen. Do not attempt to pick out the pulp tissue from the root end before filling.

8. Fill the vacant portion of the canal with plastic Osogen.

(*a*) Work the Osogen filling nearly to the point of amputation, but use care not to make pressure on the wound.

(*b*) A small amount of the Eutone dressing remains over pulp stump. The plastic Osogen sets in contact with the film of Eutone forming a solid antiseptic filling in the canal."

"Did you say that the pulp stump remains——?"

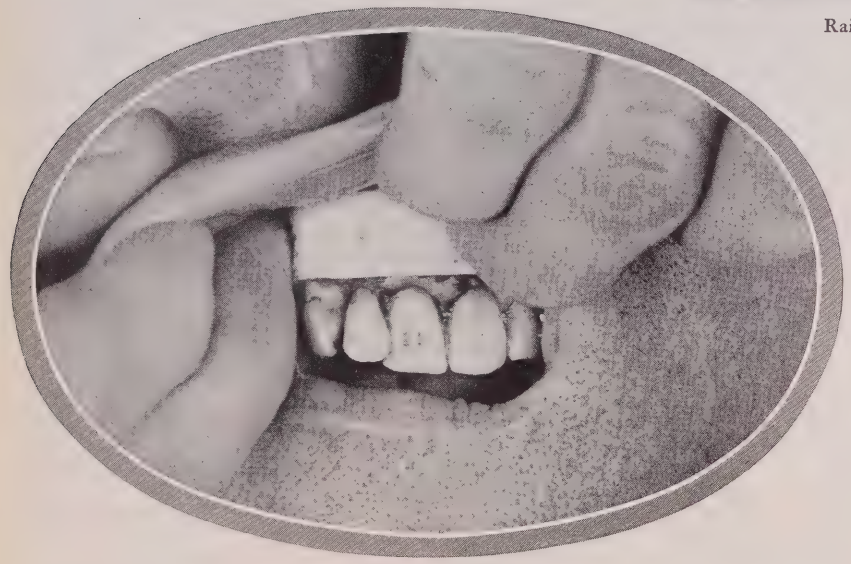
"Oh! forget it Charley," broke in our friend, the New Yorker. "You can look that up in the Journals. Besides here we are two hours late and sixty-five miles to drive before dinner. Call for a rising vote and don't use any more arsenic."

How To Apply Mercitan Cream by Poultice Method

Cut cottonoid blotter to suit

Spread thin layer of Mercitan Cream on blotter, using Stellite Spatula

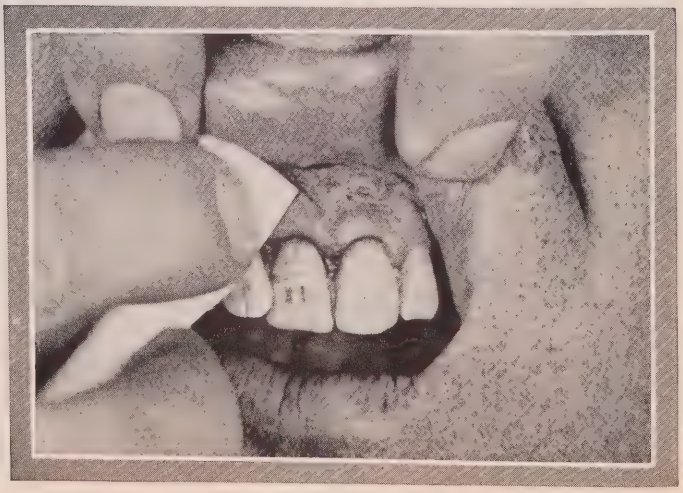
Raise lip and apply poultice to affected area



Stretch lip over poultice. By this method Mercitan Cream may be conveniently applied superficially. It is particularly indicated in cases where the gum tissues are highly inflamed. Allow Poultice to remain on affected area for not more than five minutes.

Then remove it, using end of cotton roll.

Wipe away excess Cream before dismissing patient



SEVENTH International Dental Congress

THE Seventh International Dental Congress, which meets in Philadelphia, August 23 to 27 next, besides being a world conclave of dentists, will be notable for its exposition features directly related to dentistry.

The Congress is to be held in the city where an International Exposition of the arts, sciences, education, social and commercial progress is under way. This exposition will be of vast interest to the fifteen to twenty thousand dentists who will attend the Congress.

The dental profession will, however, have its own exposition in immediate conjunction with the Congress. Five important and large exhibits will be shown: (1) a dental scientific exhibit; (2) a dental public education and health exhibit; (3) a dental historical exhibit; (4) a Government exhibit, and (5) a commercial exhibit.

The historical and scientific exhibits will, it is predicted, be the most exhaustive displays illustrative of the advancement of dentistry that have ever been shown. The committee, headed by Dr. O. G. L. Lewis, Chairman, Philadelphia, has been active in gathering together the largest collection of material possible.

The Historical and Scientific Exhibits will comprise objects of unusual interest in every department of dentistry.

The section relating to the history of dentistry will be especially interesting. Many relics of the early practice of dentistry are to be exhibited.

Philadelphia is rich in historical association with the practice of dentistry. Here practiced LeMayeur, the French surgeon and dentist who is considered the pioneer dental preceptor of America; Gardette, a pupil of LeMayeur; Hudson, who was instrumental in the organization of dentistry as a profession; Koecker, pioneer dentist and author of works on dental practice and others. Here lived Charles Wilson Peale, the famous early American artist, who in his latter years turned his attention to experiments which interested others in the development of porcelain teeth.

Military dental surgery will be an important part of the exhibition, which will be the profession's initial opportunity of viewing the results of the war experience of the dentists who served in field and camp. Dental science in Europe will contribute very extensively to this section of the exhibition.

The exhibits will be placed in buildings of the Commercial Museum, in whose vast assembly hall the deliberations of the Congress will be held. The Commercial Museum is a group of permanent exposition buildings, including one of the largest and best equipped convention halls in the country, owned and operated by the city of Philadelphia for display of export and import products.

The Commercial Museum is located in a part of the city within ten minutes' car ride of the heart of the city and immediately adjacent to the University of Pennsylvania, whose many buildings are amidst scenically pleasant surroundings. The Thomas W. Evans Institute and Museum of Dental Science and the University of Pennsylvania Dental School are among the buildings adjacent. The University student dormitories, which have been placed at the disposal of the visiting dentists, are immediately adjoining the Commercial Museum area. West Philadelphia Station on the main line of the Pennsylvania Railroad, bringing travelers from north, south and west, is within a five-minute ride of the convention hall.

Modern hotels, of large capacity, apartment houses and a vast residential district where rooming accommodations of all types can be obtained, are located in the West Philadelphia section of the city, adjacent to the convention building. In the neighborhood surrounding the University of Pennsylvania are hundreds of students' boarding

(*Continued on page 11*)

10
Instruments That
Do The Work of . . . 200

THROUGH several bye-gone periods of amalgam technique a great many designs have accumulated. All are obsolete now. ¶ The Caulk set of ten Stellite Instruments does all the necessary work with handy speed. They are a pleasure to work with. ¶ Ask for the descriptive booklet or a set for inspection from your dealer.

Set of Ten Stellite Amalgam Instruments in special case . $25.00
Set of Ten Steel Amalgam Instruments 14.00

CAULK
Alloy-Mercury Gage

WITH this device one push of the plunger brings forth just enough mercury and alloy for a small mix already measured in correct proportions—just as though a hen might lay the white and yolk of an egg separately. ¶ Spilling is impossible. Hence, there is no waste. The first three ounces of alloy more than pay for the Gage. All the rest of its unlimited lifetime, it works for nothing.

Price $7.50

ANNOUNCING
New Minimum Osogen Outfit

FOR those dentists who already have satisfactory root-canal instruments the Minimum Osogen Outfit is suggested as being most practical. It contains only those indispensable items which have been especially designed and originated for Osogenation. Hence, they will not be found in the usual dental office equipment.

THE NEW OUTFIT CONTAINS

Package of 24 vials of Osogen Fluid; 24 vials of Osogen Powder	$5.50	Glass Tray with Cover	$ .75
Stellite Spatula No. 4	2.00	Pulp-Canal Pluggers, 5 in box	1.00
Glass Mixing Slab	.45	Angle Depth Gage	1.50
Measuring Pipette O.2c.c.	.50	Bottle Eutone	.60
		Bottle Ammonium Hydroxide	.40

Price, $12.70

THE SEVEN STEPS IN OSOGENATION

First Visit

1 PREPARE THE FIELD

1. Sterilize instruments
2. Spray mouth with Mercitan Lotion
3. Radiograph (if possible)
4. Isolate with rubber dam
5. Sterilize dam and field with iodine

2 GAIN ACCESS AND CLEANSE

1. Remove sufficient tooth substance at the proper place, so as to gain direct access to canal or canals
2. Remove decay and foreign matter from cavity
3. Open the canal and remove contents two-thirds of distance to apex
4. Cleanse PULP-CHAMBER with FRESH ammoniacal hydrogen peroxide
5. GET RID of all hydrogen peroxide and dehydrate with alcohol and air
6. Flood canal 3 or 4 minutes with Eutone
7. Absorb excess Eutone and dry canal

3 STERILIZE WITH OSOGEN FLUID

1. Fill canal with Osogen Fluid
2. Cut paper point half the length of canal
3. Saturate paper point with Osogen Fluid and place in canal
4. Slightly moisten cotton pledget with Osogen Fluid and place on floor of pulp-chamber
5. Dry margins. Fill cavity with temporary stopping
6. Spray mouth with Mercitan Lotion and dismiss patient for 1 or 2 days
   Note: If the case requires immediate filling, follow the ALTERNATIVE PROCEDURE described on page 25 of Third Edition Osogenation Booklet

Second Visit

4 TEST FOR PUTRESCENCE

1. Spray with Mercitan Lotion. Place rubber dam and sterilize field with iodine as before
2. Remove temporary filling, cotton and absorbent point
3. Insert new absorbent point and test for odor of putrescence
4. *a* If putrescent odor is detected repeat treatment with Fluid and dismiss for 1 or 2 days more
   b If putrescence cannot be detected by odor (or other indications) and tooth is comfortable, then the case is ready to fill

5 PREPARE FOR FILLING

1. Wash with water. Apply ammonia water U.S.P., 3 to 5 minutes. Absorb. Wash again with water
2. Dehydrate with alcohol
3. Cleanse and enlarge main canal near to the end. *Do not open through* any of the foramina
4. By X-ray or Depth Guard (or both) check up degree of access obtained
5. Fill canal with Osogen Fluid and leave 5 minutes while making mix

6 MAKE THE MIX

1. Mix all the Powder from 1 vial with 0.2 c.c. of Fluid
2. Place mix in tray and cover it

7 FILL THE CANAL WITH PLASTIC OSOGEN

1. Absorb all free Fluid from canal and stop all seepage at the apical end
2. Fill canal with plastic Osogen
3. Radiograph (if possible) to make sure that canal is filled
4. Plug and seal crown-wise end of canal with gutta percha
5. Proceed with temporary or permanent filling of cavity

OFTENTIMES the flame of a Bunsen burner is forgotten until it comes in scorching contact with a hand or arm. Then there is no mistaking its presence. ∾ And a burn of this type, though of small consequence in itself, is always painful and inconvenient. ∾ The best remedy to use is Mercirex. Gently massage the area with a thin layer of the cream. The relief is practically instantaneous. A cooling sensation is experienced at once. And you may proceed with the work under way without interruption.

Keep a MERCIREX UNIT *always handy in your cabinet for your convenience*

MERCIREX

SEVENTH International Dental Congress

(*Continued from page 9*)

houses and fraternity houses which will be at the disposal of the Dental Congress delegates.

The Commercial Museum is in an altogether different part of the city from that in which is located the Sesqui-Centennial International Exposition. The Sesqui-Centennial Exposition, held in celebration of the one hundred and fiftieth anniversary of the signing of the Declaration of Independence, will be in the southern part of Philadelphia, the site being also about ten minutes' ride from the City Hall, the central point of Philadelphia. The exposition grounds and the center of the city are easily accessible by fast surface and subway transit lines from the convention hall.

Many noted dentists are coming from abroad to attend the Congress. Word has been received from various European and South American countries that official representatives will attend the Congress.

It is confidently expected that this will be the largest assembly of dentists ever known in the history of the profession.

Practically Everything Had Been Tried

"To date I have used just one jar of Mercirex Cream which you kindly forwarded to me. The results are very good indeed. As to a permanent cure of eczema, time alone will tell. I am also using this preparation on my two and a half year-old daughter. We have tried practically everything to help her and have had three or four physicians to give her treatment, without success. The redness and soreness have about disappeared and the child has not been bothered at all with the itching. Apparently she is not conscious of her trouble at all."
—*Gary, Ind.*

A Bad Skin Condition

"Kindly send me some Mercirex Soap. I am now using all of the Caulk products including Osogen, and stand by them all. I've been troubled with bad skin condition on my neck, and Mercirex cleared it up, where all other preparations failed."
—*Danville, Pa.*

How to gain the hearty co-operation of the patient at home has been a most baffling problem to many dentists. Simply telling the patient to use good lotions and effective tooth-pastes is futile advice seldom heeded. And the subsequent lack of success in treatment at the chair may be traced many times to this lack of care.

Substituting definite professional instructions and a written prescription for Mercitan Lotion and Mer Dentifrice, however, practically oblige the patient to procure these preparations at the drug store and then to co-operate fully in every detail at home.

It would be a pleasure to send a prescription book to you, without charge, for your convenience.

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Prescribe

MERCITAN *Mouth & Throat* LOTION

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The Armac Press Limited
Toronto, Canada

NUMBER
57
Dental Edition
73,000

PITS OR FAULTS IN ENAMEL REPAIRED WITH SYNTHETIC PORCELAIN

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MILFORD NEWS

CANADIAN EDITION

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The Right Way to Manipulate Copper Amalgam

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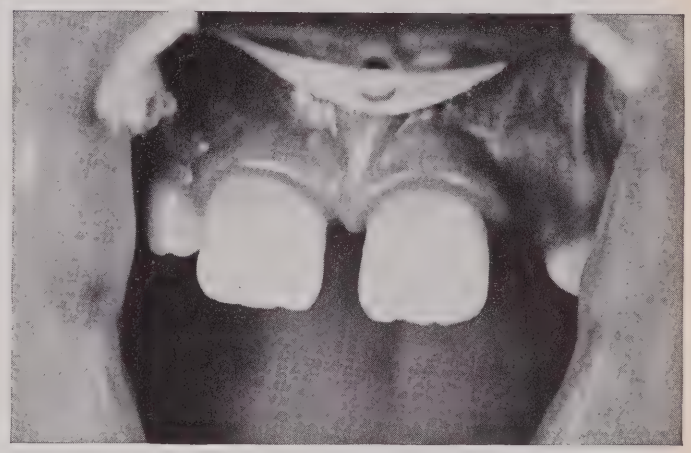
3-tube package $1.00

Pits or Faults In Enamel Repaired With *Synthetic Porcelain*

***Photograph* 1346-A (*above*)** shows two centrals of a boy eight years old. A line of small pits or faults in the enamel may be observed in each tooth. Decay had progressed into some of the deeper pits. The child had a severe case of measles when an infant and the malformation of each central may have been a result of the disease.

***Photograph* 1346-B (*below*)** Very small cavities were prepared and each one filled with Synthetic Porcelain. Thus we were able to prevent extension of decay and obtain the desired esthetic effect.



Remember These
Eight Important Points
In Your Technic

1 ***The setting period*** of the Synthetic Porcelain restoration is like the growth period of a plant or animal. Don't do anything to stunt it.

2 ***Don't finish too soon*** if you can avoid it. To insure maximum strength, leave the restoration undisturbed at least twenty-four hours. In this time, the filling attains ninety per cent of its maximum strength.

3 ***Finishing is obviously better*** and easier to do on a hard body than on a softer surface. This is another reason why the finishing should be deferred at least twenty-four hours whenever possible. The surface of the restoration can then be made smoother and more glossy with less liability of fracture at the margins.

4 ***Premature finishing*** tends to reduce the translucency, interferes with the attainment of maximum strength, and forms a veneer on the surface, having less integrity than the body of the filling.

(1) *See that the consistency is as close as possible to the ideal.* (2) *Hold the celluloid strip or matrix firmly immovable three minutes by the watch.* (3) *Do not burnish.* (4) *Do not try to hasten the setting, either by heat or other means.* (5) *After three minutes (by the watch,) release the strip and immediately coat the filling with cocoa butter, not hot, but just warm enough to manipulate.* (6) *Wait fifteen minutes more, during which time the filling should not be touched or disturbed in any way. Then proceed with finishing according to the published technique.*

5 ***Emergency finishing*** can be done, if necessary, with perfectly satisfactory results, providing care is taken.

PERCENTAGES OF STRENGTH	
In the first ten minutes	40%
In the first hour	60%
In the first day	90%

6 ***Any dodging*** of the right technique is always done at the operator's own expense. Right technique means right according to the laws of chemistry and physics, which can not be evaded by anyone. The technique for Synthetic Porcelain is simply a translation of these laws into the terms of practical manipulation.

7 ***Synthetic Porcelain is stronger*** than any other known cement of any kind either dental or industrial. Even Portland cement and the magnesium oxychloride cement used for pavement and floorings are much weaker than Synthetic Porcelain. This statement is based on routine tests of five millimeter test cylinders twenty-eight days old which uniformly sustain a crushing load of at least 1450 pounds without breaking.

8 ***The foregoing statement*** has been repeatedly published as a scientific fact, and has never been disproved by anyone.

TWELVE POWDERS WITH FOUR LIQUIDS

HERE is the new 12-4 package of Synthetic Porcelain. It contains twelve full portion bottles of powder and four full portion bottles of liquid at **$39.50** per package.

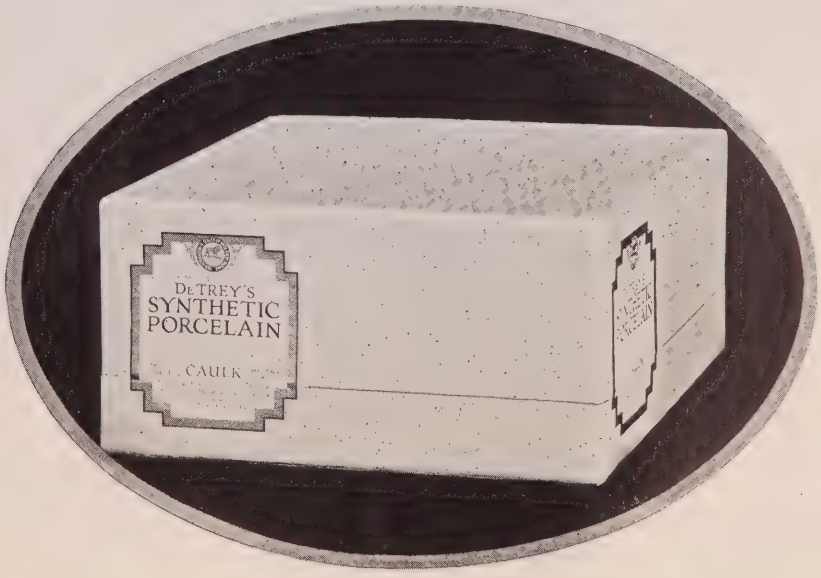
The old style package of Synthetic Porcelain contained double portion bottles of liquid. The smaller bottles in this new package are generally more convenient for dentists.

Then too there are twelve bottles of powder instead of only ten in the old style package.

The regular shades of powder are: White, Light, Light Yellow (two bottles), Yellow, Dark Yellow, Yellowish Light Gray (two bottles), Light Gray, Bluish Light Gray, Dark Gray, and Special Blend.

But your dealer (from stock, without a moment's delay) can supply this new package with *any other* assortment you may prefer.

When purchasing the 12-4 package also ask for the Caulk Shade Chart. It is an invaluable aid in perfectly matching tooth structure with Synthetic Porcelain.



MAKE YOUR OWN AMMONIACAL HYDROGEN PEROXIDE FOR OSOGENATION

M. F. BABCOCK, Caulk representative in California, writes that he is repeatedly asked by dentists where Ammoniacal Hydrogen Peroxide, which is specifically recommended in Osogenation, may be obtained.

It is true that the hydrogen peroxide on sale in drug stores is acid in reaction and never alkaline. The reason is that alkaline hydrogen peroxide is very unstable and hence can not be satisfactorily carried in stock The ordinary acid hydrogen peroxide, however, is stable.

Consequently don't try to buy *Ammoniacal* Hydrogen Peroxide. Instead, buy Ammonia Water U.S.P. (ammonium hydroxide) and a good grade of hydrogen peroxide. Keep these two preparations in your office and make a *fresh* mixture immediately before using.

To make Ammoniacal Hydrogen Peroxide, simply add one part of ammonia water to four parts hydrogen peroxide. Never use acid peroxide in connection with Osogen. Always make it alkaline according to the proportions described above. Always see that the acid peroxide is fresh upon purchasing and also that the mixture is freshly made.

The application of Ammoniacal Hydrogen Peroxide to the coronal part of the tooth prevents subsequent discoloration caused by the presence of putrescent organic material in the dentine. It also accomplishes a superficial bleaching.

Repeat application of peroxide until it practically ceases to effervesce, showing that the putrescent material is destroyed.

Never, under any circumstances, allow the hydrogen peroxide to enter or be forced into the periapical region where the pressure of liberated oxygen may cause a spreading of the infection with subsequent pain.

This is prevented in most cases by limiting broaching in canal one or two millimeters short of apex. If canal is open all the way to apex when case presents, take care not to plug the canal with any smooth instrument. The oxygen gas will not force hydrogen peroxide into the apical region providing it can escape via the pulp chamber.

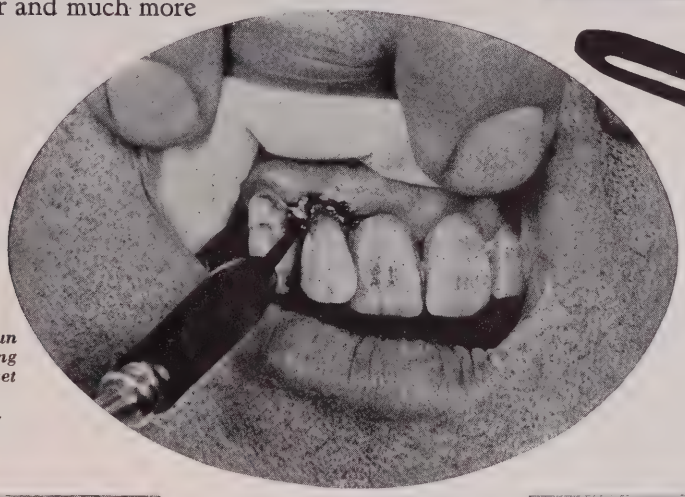
Improved Method

of Applying Mercitan Cream Contributes Speed and Efficiency to Technic

THE particular feature of this improved method, comprising the Injectogun and Celluloid Cream Injector, is the ease with which the Mercitan Cream can be packed down to the end or sulcus of the pocket—where it should be placed in order to accomplish surest and quickest results

Therefore, employing this method makes each treatment shorter and much more effective.

Cut the closed end of Injector slantwise. This makes a beveled point which will readily slip beneath the gum. The opening in the injector should be sufficiently large to allow Cream to pass through easily



Loaded Injectogun in operation, filling a proximal pocket with Mercitan Cream

Price $4.00

Several Injectors may be filled with Cream prior to the start of treatment, thereby avoiding delay. Many users of Mercitan find that jabbing the Injector into the jar of cream and removing with a twisting motion to get rid of excess cream from the outside surface is the most convenient way to load the Injectors

Insert cork in mouth of Injector. If the cork is too large, roll it between the fingers under pressure. It can then be inserted with ease.

With correct manipulation the Injectogun is an invaluable aid to the Mercitan user. It will deliver by each complete discharge thirty inches of Mercitan Cream in a continuous thread, 1/75th of an inch in diameter, deep into pyorrhea pockets or upon affected areas. In order to obtain maximum service from it, however, the instrument should be taken apart occasionally and each part rinsed in warm water. There is nothing complicated about its construction to be confusing when reassembling the parts

Photograph **1358-C.** Hold square of Copper Amalgam over the flame until small beads of mercury come to the surface.

The *Right Way* To Manipulate Copper Amalgam

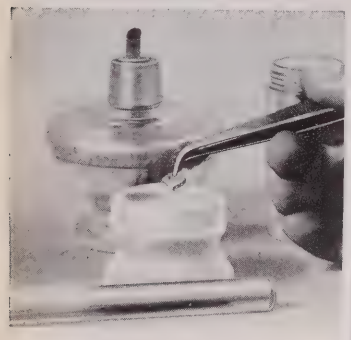
MOST dentists dislike to fill deciduous teeth for children. Especially so when the little folks are nervous and high strung. Generally the cavity can not be properly prepared. Then dryness is out of the question. And if a regular filling material is being used, very poor results are obtained in most cases.

Caulk Copper Amalgam is particularly well adapted for filling temporary teeth. Absolute dryness in the cavity is not imperative. The pronounced, non-irritating, germicidal action of the Amalgam inhibits decay and preserves the tooth. Its slow setting and ease of manipulation make it unusually serviceable for frail teeth.

Then again in Caulk Copper Amalgam you have pure copper and pure mercury. In the thorough kneading, triturating and washing processes carried through during manufacture, all copper oxide, copper sulphide and other impurities are removed.

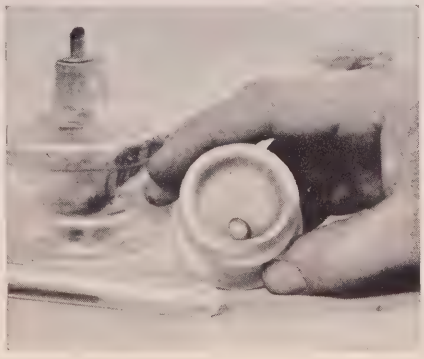
You may depend upon it that the purity of Caulk Copper Amalgam makes it much smoother and from twenty-five to fifty per cent stronger than any other. At the same time this purity causes it to amalgamate more rapidly and set faster in the mouth. Speed of setting is an extremely valuable property in filling deciduous teeth. In short, Caulk Copper Amalgam is by far the best Amalgam that can be made of copper and mercury.

It is cut in small convenient squares, ready for use, packed in bottles containing six ounces.



Photograph **1358-J.** Immediately drop square of Copper Amalgam into mortar.

Photograph **1358-H.** Triturate Copper Amalgam at once as you would Twentieth Century Amalgam. The proper proportions of mercury and alloy are incorporated in the original square. If mix is a little dry, just a trace of mercury may be added. Use amalgam as dry as possible.



Photograph **1358-D.** Copper Amalgam rolled into a mass and ready to be divided into smaller portions. Before each portion is placed in the cavity the mercury may be expressed as desired.

Entertainment Features of Seventh International Dental Congress

THE hours not occupied by the Seventh International Dental Congress in Philadelphia next August 23rd to 27th in deliberations and official transactions will find the delegates almost overwhelmed with a program of entertainment and diversion. This program, which is rapidly nearing completion, is being arranged by the Entertainment Committee of the Philadelphia Committee of Arrangements.

It is most broad in its appeal. Not only will it afford diversion and social relaxation to the fifteen to twenty thousand delegates who will attend the Congress, but it will give them educational and professional contact.

Besides the Sesqui-Centennial International Exposition, there will be more than sufficient to keep the delegates busy during the hours the Congress is not in actual session.

For sightseeing, Philadelphia is exceptionally endowed. Being the birthplace of the nation, it has a wealth of historic interest, especially if the visitor be an American of patriotic instinct and a student of the history of his country. He will avail himself of the chance to view the Liberty Bell, Independence Hall, the Betsy Ross house, Benjamin Franklin's grave, Carpenters' Hall, where met the first Continental Congress, historic Germantown, Valley Forge and other revered spots almost without number. The Philadelphia hosts are completing plans for tours of all these historic spots during Congress week.

These places and relics hallowed by the nation's history are actually the focal points of the Sesqui-Centennial celebration which Philadelphia and the Nation are observing this Summer. The Sesqui-Centennial signalizes the 150th anniversary of the signing of the Declaration of Independence. Many individual events of this all-Summer historic celebration will include these spots in their ceremonies and, as the events will be in full course in August, the Dental Congress delegates will find diversion in all these features.

President Coolidge will open the Dental Congress, and will during his stay in the city for that purpose, participate in events identified with the historic anniversary.

There will be no dearth of entertainment with the preparations this committee is making.

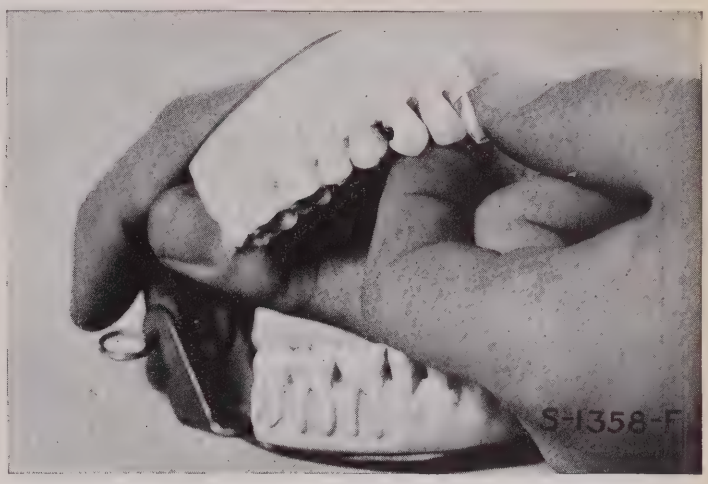
Its companion committee, that of Hotels and Accommodations, again sounds a warning to those who are contemplating attendance at the International Congress to make early reservation of accommodations. The hotel space is limited, owing to the presence of other conventions at the same time.

It is of the utmost importance that every dentist who has the slightest intention of attending the Congress, should at once communicate with the management of one of the Philadelphia hotels, or other housing agencies to make reservations.

The officers of the Congress draw attention to the fact, that only those holding cards of membership will be admitted to its sessions.

Members of the American Dental Association are, by virtue of their membership in good standing in that body, active members of the Congress. The rules of the Congress provide that any national dental body may join on behalf of its members, paying a fee of $1 per head. Associate membership, with admission to the Congress, is provided for members of the medical profession and of other scientific professions, on payment of $10 each.

Dental students can be admitted to the sessions on the payment of a $5 fee, covering the entire Congress, and on being vouched for by the dean or other officer of the dental school they attend. Visitors to the Congress who are not eligible for membership, such as the families of members, may gain admission to its sessions on payment of $5 for each person. Dental practitioners in this country not members of the American Dental Association are not eligible to admission to the sessions.



Don't Peek Under Celluloid Strip

WHEN the celluloid strip or matrix is indicated in placing a Synthetic Porcelain restoration, fit it into position, fill the cavity and then draw the strip around the filling. Hold it firmly for three minutes. Never burnish over the strip. Burnishing interferes with crystallization and sometimes causes a line of demarcation.

Cocoa butter should not be applied to the strip.

As soon as the filling has set initially, release the pressure and the strip will spring away from surface of filling. Then coat the filling immediately with cocoa butter which has been melted on a warm instrument.

The immediate application of ether-alcohol varnish should be avoided because the surface of the filling may be dehydrated. The evaporation of the solvent from varnish may also cause a cooling of the surface sufficient to result in condensation of moisture.

The cocoa butter is used to

(*Continued on page 8*)

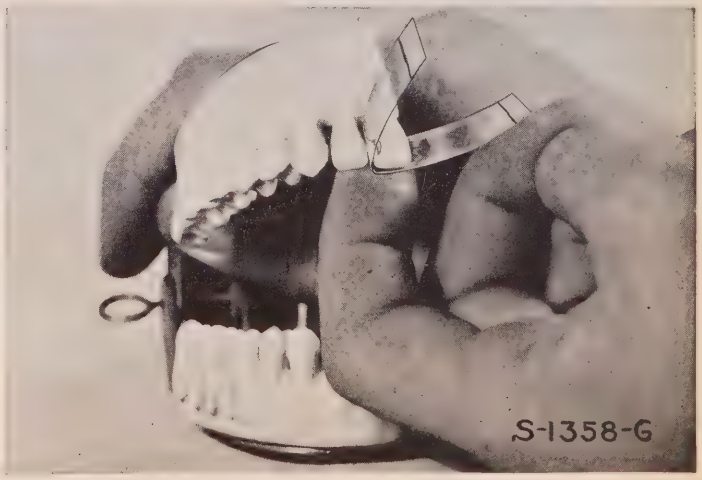
Photograph S-1358-J. Supporting the celluloid strip from the lingual. Modeling compound or temporary stopping may also be contoured and used to support the strip on the lingual.

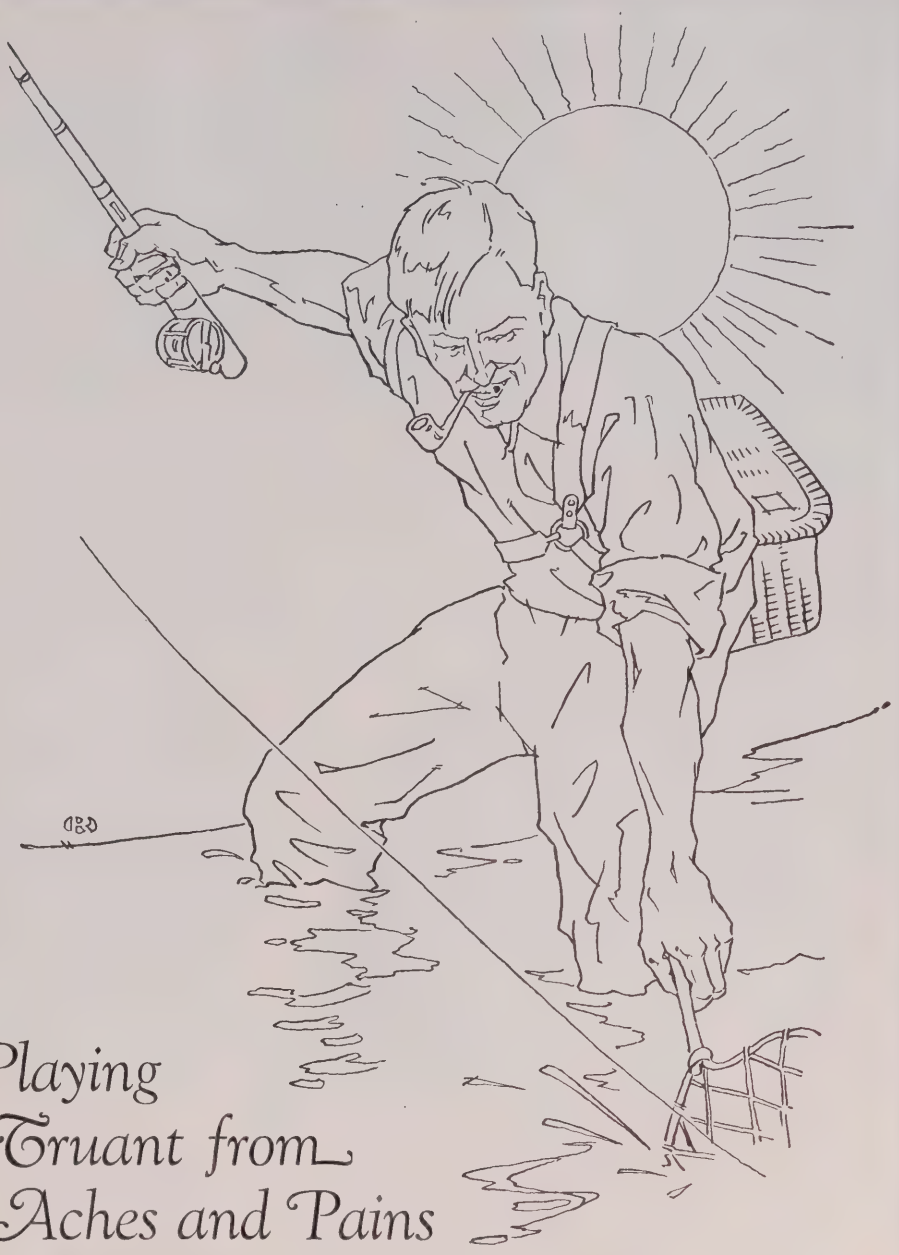
Photograph S-1358-F. Material placed and celluloid strip held firmly, thus compressing the Synthetic Porcelain into the cavity.

Photograph S-1358-I. The clean strip springs away from the tooth after being held for three minutes. Cocoa butter should not be used on the strip. Without it the strip will spring away from the Synthetic Porcelain leaving a smooth, glazed surface.

Photograph S-1358-E. A common fault—peeking under the strip before three minutes are up. The result is the Synthetic Porcelain sticks to the strip and pulls away from the cavity margins.

Photograph S-1358-G. Another fault, letting go of the strip before the three minutes are up. Result is the same as ***S-1358-E.*** If either mistake has been made the material should be entirely removed from the cavity and a new filling placed. The homogeneous mass has been disturbed and the material will have many minute checks and cracks caused by the disturbance of moving the strip before three minutes are up.





Playing Truant from Aches and Pains

Most dentists like to fish. It's a keen pleasure to get away from other people's aches and pains for an hour or two of good fishing. ¶ And on a hot summer's day it's a relief to shed the starchy operating gown or coat. Much better to throw the shirt open at the throat, roll up the sleeves, and just bask in the sun, waiting for the fish to bite. ¶ For this truancy from work a severe penalty is inflicted in the evening. Face, arms, hands and throat just about burn up. For a moment you regret the day's outing. And then you think of the jar of Mercirex in the medicine cabinet. ¶ Under a gentle massage the cream vanishes, but it continues to exert its cooling action long afterwards. And there is no messy ointment to bother with. ¶ There are a dozen convenient uses for Mercirex in the summer. Keep a Unit, containing two cakes of soap and jar of cream, ready for instant use.

MERCIREX

Don't Peek Under Celluloid Strip

(*Continued from page 7*)

prevent loss of water from the surface of the filling and also to prevent moisture from coming in contact with it.

Do not attempt to remove the excess Synthetic Porcelain or to finish the filling before ten minutes have elapsed. Do not use chisels or cutting instruments to remove the excess; damaged margins are sure to result. Use fine stones, disks and strips, well lubricated with cocoa butter. The cocoa butter prevents heat generation by friction, which would cause bleaching of the filling and a roughening of the surface.

When finishing must be completed at the same sitting, always work toward the filling. This is just the reverse of the practice for gold fillings.

After final contouring and finishing have been done with finest cuttle-fish disks, a beautiful polish can be obtained by using Caulk Dental Polish applied with hard felt wheels. Use just a trace of the polish. Overloading the wheel or disk makes polishing slower rather than faster.

If the filling is not to be finished at once, but at a subsequent sitting, coat it with cocoa butter. Then wait ten minutes, remove excess butter with dry pledget of cotton and coat the filling with Repelac.

Do not use a solvent such as chloroform, ether, etc., to remove the cocoa butter. Never neglect to use cocoa butter on abrasives even though the filling is to be finished subsequently.

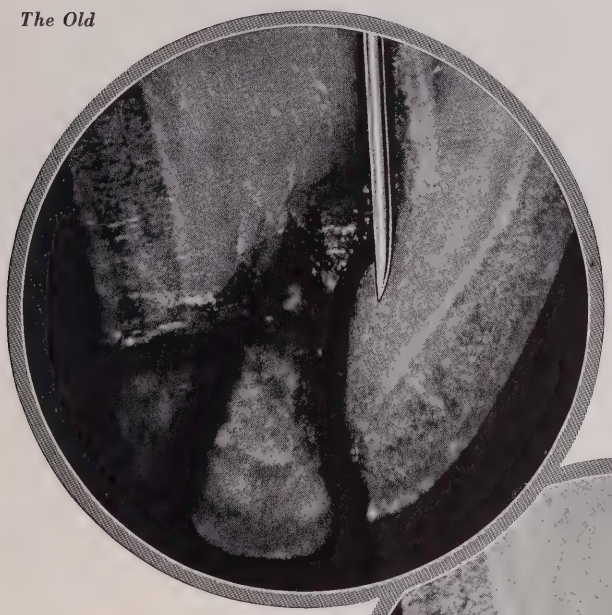
By Caulk, It Must Be Good

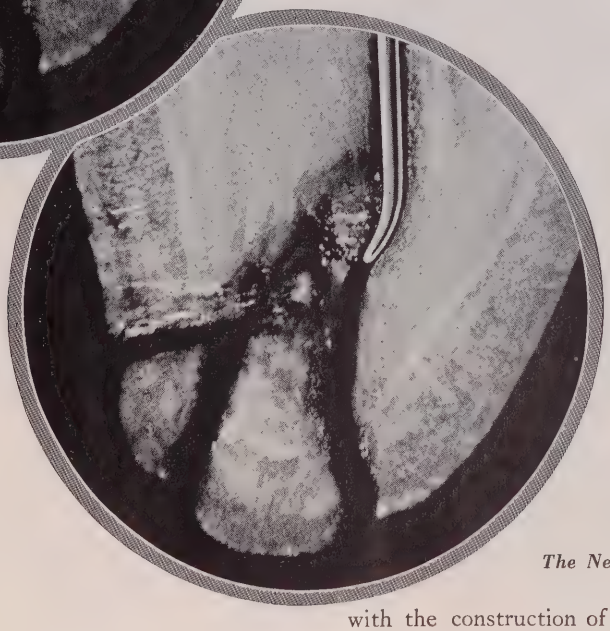
"I had a sore in my left nostril which was very annoying. It persisted for over six months and I could find nothing to heal it. After using Mercirex however, for one week, applying it twice each day, this sore has been completely healed. Consequently I have great faith in Mercirex because it has been so satisfactory to me and also because anything placed on the market by Caulk has to be good."—*St. Louis, Mo.*

"I am becoming more acquainted with Mercitan Lotion," says a Minnesota dentist—"an excellent preparation, and I find that I constantly use it in preference to any other."

Unique Construction of Freepas Instruments Takes Part of the Difficulty Out of Root-Canal Operations

The Old





The New

THE STICKING OR JABBING

The sticking or jabbing into the sides of the canal which so often occurs to delay the operator and aggravate the difficulties of working with inefficient tools is notably absent in work done with the new Freepas Instruments

THE common complaint against root-canal therapy is that the operation is too difficult or tedious. The space to work in is so limited and hidden that there is always present a certain degree of uncertainty.

It was because of this situation and to get rid of it as far as possible that the improved design of the Freepas instruments was originated. This new design is so simple and so obviously practical that the wonder is no one had thought of it heretofore in connection with the construction of root-canal instruments.

Any instrument that jams and sticks in the canal, or that otherwise does not work efficiently is an expensive obstacle for the operator. It makes the operation too irksome, too slow and too tedious.

Efficiency and speed are requisite factors of maximum importance in pulp-canal technic. Upon carefully examining and actually employing each of the new Freepas instruments you will discover that it is designed to do a certain part of the work efficiently and to do it quickly.

The Freepas instruments get rid of the poking and fussing with obsolete instruments, and substitute a definite means of doing a definite thing in a reasonable time. The result is that a valuable service is accomplished which a patient of ordinary means can appreciate, since there need be no lost motion to use up valuable time.

EMPLOY THE LONG HANDLE INSTRUMENTS

It is always advisable to use long handle root-canal instruments such as explorers broaches, picks, etc., in root-canal operations without the rubber dam in place. Too great a chance is taken when short handle instruments are used. They can easily slip or drop out of the fingers or canal and become lodged in the patient's throat.

Another advantage of the long handle instruments over

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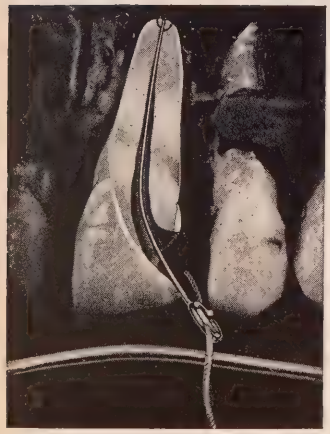
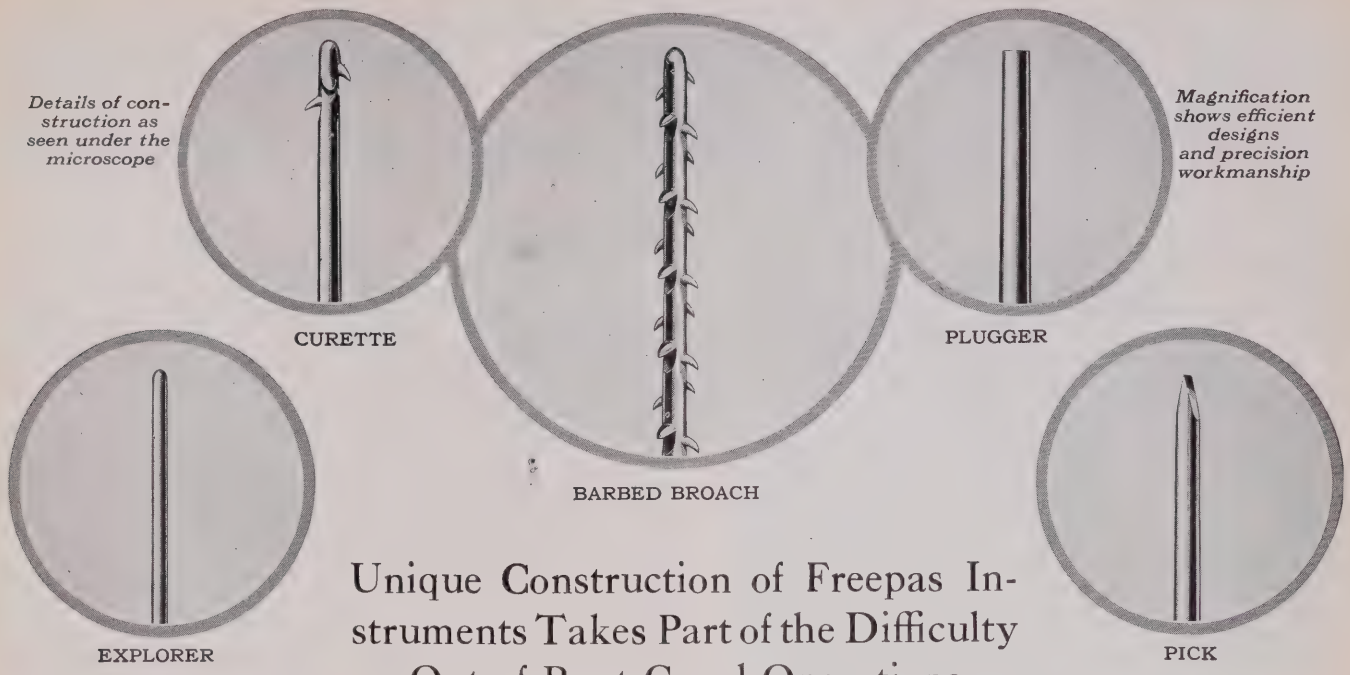


Diagnostic Wire

Barbed Broach

Apical Curette

Depth Guard and Explorer



Unique Construction of Freepas Instruments Takes Part of the Difficulty Out of Root-Canal Operations

(*Continued from page 9*)

the short is that a better purchase or grasp of the handle is obtained. They are also especially efficient in posterior teeth since they may be conveniently bent to suit the position.

Grooves cut in both the long and short handles mark the different sizes of Freepas instruments. One groove indicates extra fine, two grooves fine, three grooves medium and four grooves coarse. This system of marking prevents delays and mistakes, aids in selecting corresponding sizes of different instruments and also aids in the progressive use of different sizes of the same instruments. The handles are all aluminum and ribbed to prevent slipping in the fingers.

Freepas Barbed Broach

The Freepas Barbed Broach is uniformly cut; not accidently correct as would be the case of hand cut barbs. Instead it is machine cut and, hence, mechanically correct.

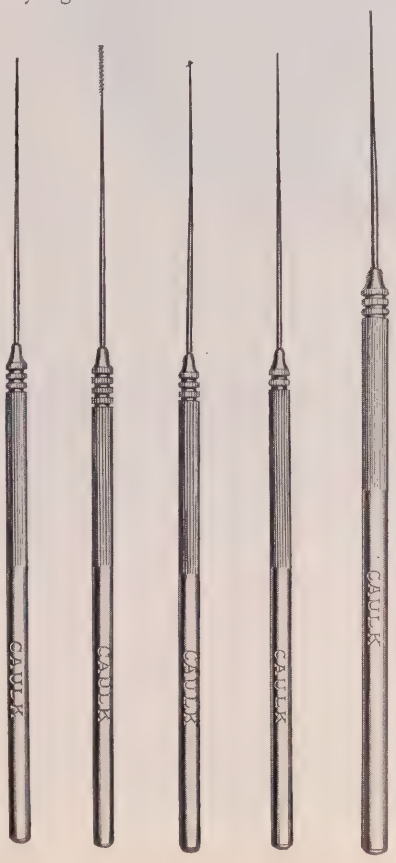
The metal of the Broach is a special alloy of steel, not ordinary iron wire. This metal is particularly suitable to pulp-canal work because it is sufficiently hard to make sharp barbs, sufficiently ductile to follow the shape of tortuous canals, sufficiently tough to not break easily and practically rustless under all atmospheric conditions.

The barbs are of a harpoon style, not standing straight outward but curving back like a fishhook. They pass alongside the pulp without catching or crowding. The barbs are also arranged spirally on all sides, graded according to the taper of the wire, but are not deep enough to weaken the Broach at any point. Each Broach has the correct number of barbs—thirty-eight to the inch.

The point is rounded so that it will not stick or jab into the sides of the canal.

Freepas Diagnostic Wire

The clasp on the end of the Freepas Diagnostic Wire holds floss silk without tying, thus protecting the patient and operator from a dangerous and embarrassing situation. One end of the floss silk should extend outside of the mouth. The clasp also serves as a secure grip for fingers or pliers. The point is rounded to follow the canal without sticking or buckling.



Actual sizes of Long Mounted Instruments. To avoid confusing the Explorer and Plugger (first and second from right) please note that the handle of Plugger is much longer and larger. Employing the Explorer in contact with Plastic Osogen instead of the Non-Corrodible Plugger is a possible cause of discoloration.

Freepas Apical Curette

After the canal has been enlarged and cleaned, the Apical Curette is employed to find and remove any shreds of cotton, absorbent points, and particles of pulp tissue that may remain near the apical foramen. Barbs are placed near the point and on three sides only. One side is left smooth. This construction allows the Curette to go farther into a small canal and helps to prevent locking.

The metal is practically rustless and somewhat harder than the Broaches and Explorers. The point is rounded to facilitate placing or extending the instrument to the desired point.

Freepas Hatchet-Edge Pick

A new idea in picks. Because of its double-bevel construction this Pick has a tendency to follow the line of least resistance along the canal and therefore does not cut pits or notches in the canal wall. When the canal is obstructed with secondary dentin or pulp nodules, use this Pick as a miniature flexible pick-ax or chisel, to chop through the obstruction.

This principle is correct. Imagine trying to dig a hole in the ground with a sharp needle-point instrument. The material immediately surrounding the in-

(*Continued on next page*)

strument would be packed all the tighter, rather than the opposite condition of loosening and chopping the material as would be the case when the Hatchet-edge Pick is employed.

Freepas Pulp-Canal Explorer

The Freepas construction allows the Explorer to traverse the entire length of the canal without catching or sticking in the sides even though the canal is tortuous.

The Explorer is an invaluable aid in efficiently locating the opening of the canal as well as in exploring its narrow portion even though it is constricted and crooked.

Gradually advance the Explorer with a series of pushing and picking motions until it reaches clear to the end of the main canal or one of its branches. Never force any root-canal instrument beyond the apical foramen.

Employing the Freepas instruments with the rounded points will decisively demonstrate to the operator that they will not stick or jab into the sides of the canal but will follow even the crooked and tortuous canal with more ease and less trouble than similar instruments with sharp points.

Freepas Pulp-Canal Pluggers

The Pulp-Canal Pluggers are made of a special alloy and hence are not affected by any corrosive chemical action when used with Osogen. The metal is an alloy made specially for this purpose. Steel instruments should never be used in direct contact with Osogen because of subsequent discoloration. The working point is made flat and at right angles to the long axis thus aiding in carrying the Osogen to the desired depth of the canal.

Caulk Depth Guard (*Gauge*)

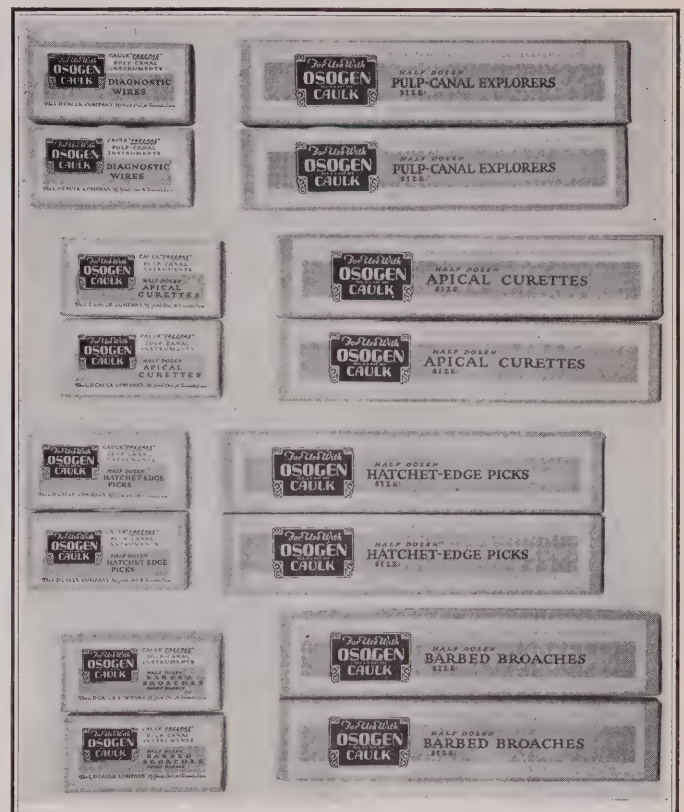
The Caulk Depth Gauge is uniquely and simply constructed. It has no moving parts, threads or screws and requires no mechanical adjustment except insertion of the instrument into the Guard until its point projects about an inch. Then pass the point into the canal to the spot where instrumentation should stop, as indicated by diagnostic radiograms or other means. Hold the instrument firmly and slip the Guard down against the tooth. The instrument can then be used freely without any danger of penetrating beyond the fixed limit. When the length of its projection is marked on the record chart or on a piece of paper, other instruments can be regulated to the same length in the Guard so that they will all go the same distance into the canal—and no farther.

Silver Fillings

Any dentist will tell his patients that the objects of filling teeth are to stop the further loss of tooth structure; to prevent recurrence of caries; to restore full tooth-contour; to stimulate natural appearance; and to re-instate the tooth as a functioning member.

But few patients appreciate the fact that detailed technical processes are involved in the making of a genuine amalgam restoration.

Quite frequently too the patients ask for silver fillings at fifty cents or a dollar and later find that a considerable load of trouble in the form of gingival irritations, mal-occlusion, pyorrhea and ultimate extraction came as a free gift.



A Complete Set of Pulp-Canal Instruments

At a Saving of

$3.50

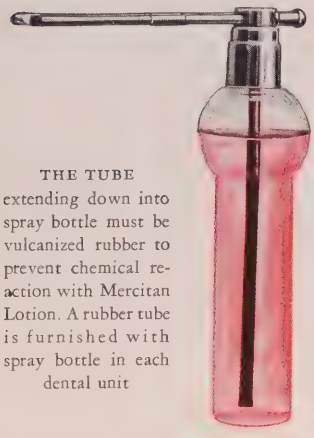
Efficiency and speed are desirable in any system of pulp-canal technic no matter what method the operator may be using. Therefore although the Freepas instruments were designed particularly for Osogenation, they are also superior for all operations in the pulp-canal.

Set Contains:

Pulp-Canal Explorer (two sizes)	
Long mounted, per dozen	$1.50
Barbed Broach (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50
Hatchet-Edge Pick (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50
Apical Curette (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50
Each size in boxes of half-dozen	
Diagnostic Wires (one size)	
Per box of one dozen	.75
Regular Price	$11.25

Introductory Price $7.75

When the dentist's first act is to spray the patient's mouth thoroughly with Mercitan Lotion, he promptly checks the embarrassing apology which so many patients feel incumbent upon them to offer for the uncleanly condition of their mouths. ∾ Besides, this act is more than a thoughtful courtesy, psychologically effective. The soothing, tonic action of Mercitan Lotion on oral tissues is keenly appreciated by the patient.



THE TUBE extending down into spray bottle must be vulcanized rubber to prevent chemical reaction with Mercitan Lotion. A rubber tube is furnished with spray bottle in each dental unit

And its antiseptic, deodorizing function exercises to the benefit of both patient and dentist.

Then, during the operation, when possibly the tissues have been injured slightly causing pain and discomfort, Mercitan Lotion is so much more pleasant and soothing than plain water.

This courtesy on your part may seem to be but a minor consideration to you, but to the patient it creates a sense of confidence and comfort which will add to the most favorable impression of care and thoroughness.

At the conclusion of every examination, every treatment, and every operation a final spraying of the mouth with Mercitan Lotion will not only promote rapid healing, but will refresh and gratify the patient upon leaving your office.

MERCITAN *Mouth & Throat* LOTION

Printed in Canada, The L. D. Caulk Co. of Canada, Limited, 172 John Street, Toronto

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TEN MINUTES with a PYORRHEA MISSIONARY

CANADIAN EDITION

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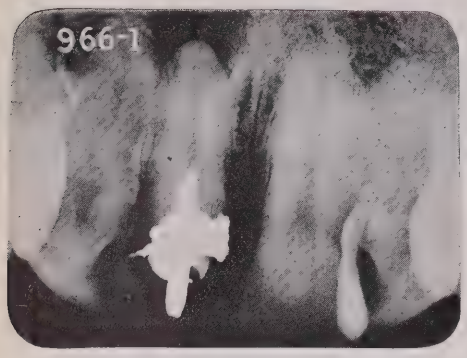
Report of OSOGEN CASE FIVE YEARS OLD



Film 1
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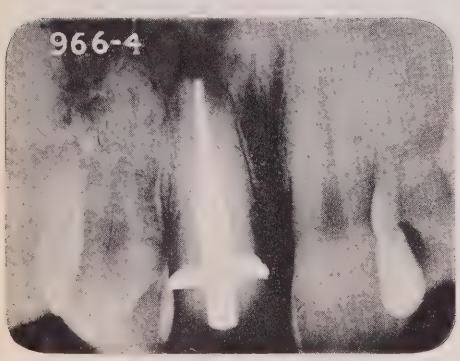

Film 4
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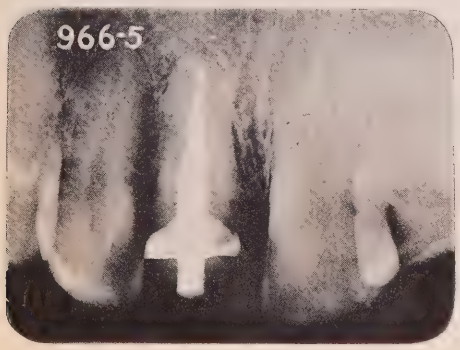
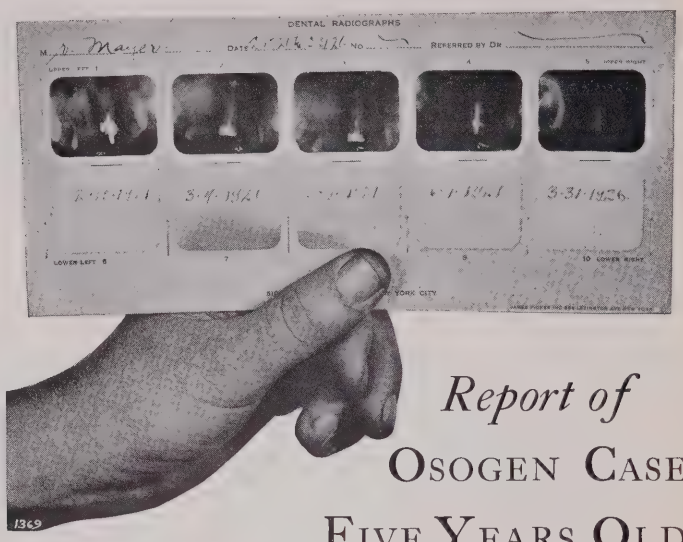


Film 5
March 31, 1926



Report of Osogen Case Five Years Old *Contributed by* New York Dentist

"I am enclosing herewith," writes a dentist in New York City, "a series of films in a case which I treated in the late winter of 1921 with Osogen. Patient male, age thirty-two. X-ray showed upper left central incisor root having Davis crown, root-canal evidently unfilled from end of pivot to apex, apical area showing great destruction.

"Clinically, slight soreness on percussion, fistulous opening with slight discharge of pus on gum about half inch above gingival border of tooth.

"History, pivot tooth originally placed ten years previously had been removed five years afterward to relieve acute alveolar abscess which had produced fistula at the height of its symptoms.

"Symptoms had evidently subsided under treatment and the Davis crown shown in first film was then placed on it. Fistula re-established itself less than one year after this and persisted at various intervals in the slight discharge of pus, but patient disregarded this condition in the absence of any pain or soreness.

"When this case came to me it had evidently been established as a chronic condition for practically five years at least.

"Film No. 1, February 15, 1921: Shows extent of necrosed area. Due to patient's business taking him out of town I was only able to use three Osogen Fluid treatments with the accompanying cleansing procedure of the root between February 20th and March 4th. The soreness cleared up and pus discharge stopped from the fistula by February 27th. On March 4, 1921, I filled root canal with plastic Osogen.

"Film No. 2, March 4, 1921: Shows canal filled with Osogen and excess in apical area. There was a local reaction of considerable swelling during the following night with tenderness but no great pain.

"I treated these symptoms locally with poultice on the gum and ice packs on the face and symptoms were relieved completely by March 9, 1921.

"Film No. 3, March 9, 1921: Shows beginning of absorption of excess Osogen in apical area. After taking this film I injected Novocain and opened through the fistula and removed the remaining excess Osogen. The wound healed up of its own accord and the fistula became entirely obliterated by the time I took the next film.

"Film No. 4, June 7, 1921: Shows apical area fairly well filled in and a new Davis crown which I put in place a few days previously to taking this film. This patient then dropped out of sight until this month and on March 31, 1926, five years after the final interference on my part with the apical area, I took the last film.

"Film No. 5, March 31, 1926: It seems to me that a complete and absolute filling-in of homogeneous bone tissue has taken place here and the only thing I would like to do now would be

(*Continued on page 11*)

TEN MINUTES with a PYORRHEA MISSIONARY

"Well, that didn't hurt much after all, Doctor. I had no idea that you could fill that tooth with something other than gold or silver fillings which are so unsightly in front teeth. I am delighted."

"My, I placed you for one of those temperamental women who would make a hard patient to handle. Dentistry today is something real, Mrs. Borden. I suppose your childhood notions of the dental office still persist and they caused you to be somewhat unruly at first. But you have been an ideal patient at that."

"I imagine my early recollections had something to do with my fear of the dental chair, but I am now convinced that a good dentist can do wonders, Doctor."

"No, most dentists today do as well as I can. The explanation is that dentistry has progressed remarkably in the last fifteen years. We have greater knowledge than ever before of the causes of tooth decay, pyorrhea, and abscessed teeth, and we have better methods for restoring the damage due to dental neglect.

"Your mouth shows that you have tried to care for your teeth but I am afraid you have not paid sufficient attention to the gums. I noticed several places where you show signs of incipient pyorrhea."

"That's funny; I have been using a tooth paste which I understood would prevent pyorrhea."

"No use, Mrs. Borden, you cannot prevent or cure pyorrhea with anything that you may use. That requires dental treatment with intelligent brushing of the teeth and massage of the gums. You must have gotten your idea from newspaper advertisements."

"No doctor, my sister told me about this tooth paste and said it was fine and would prevent pyorrhea. I suppose she found out about it by reading some 'ad' because she is employed in an advertising agency and knows a lot about those things. I thought she knew—if she said the stuff was good."

"That is the crime of popular advertising. Even though the truth is told in a way, as a rule the sins of omission mislead the public. Some of the more reputable manufacturers have caught the modern idea and openly inform the public that periodical visits to the dentist are necessary. But this advice is subordinated to the general appeal of the 'ad' and the patient doesn't get the proper impression."

"Doctor, do you mean to say that these tooth pastes and pyorrhea preparations are of no value?"

"No, some of them—that is, tooth pastes and mouth lotions —are decidedly beneficial. There are a lot of useless nostrums sold today as pyorrhea cures and the government is only beginning to investigate this evil. You would do well, Mrs. Borden, to steer clear of any preparation which is advertised as a cure for pyorrhea; which claims sure death to pyorrhea germs; which makes loose teeth firm, miraculously destroys pus and heals pyorrhea pockets."

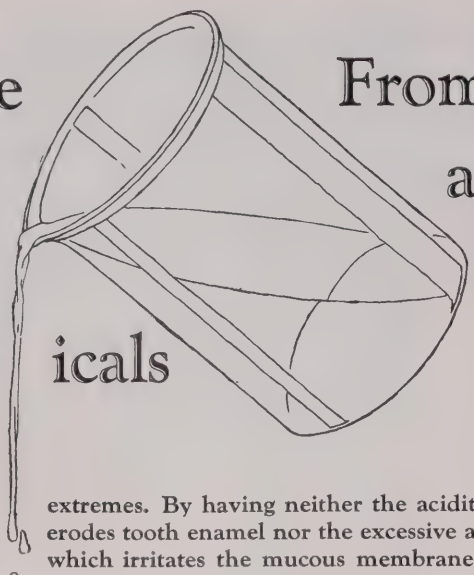
"It must require a great deal of knowledge to know about these things, Doctor Bringhurst, and I am glad I asked about it. How can you tell whether a certain medicine will or will not cure pyorrhea?"

"Before we can cure any disease, Mrs. Borden, we must know its cause. We know now that pyorrhea is not a specific disease but is really a complex of symptoms. It is not caused by any definite microbe as, for instance, typhoid fever. In fact it is not caused by microbes at all."

"I always thought pyorrhea germs caused the trouble. So many advertisements of py-

(*Continued on page 10*)

Free From Powerful Irritating and Chemicals and Drugs

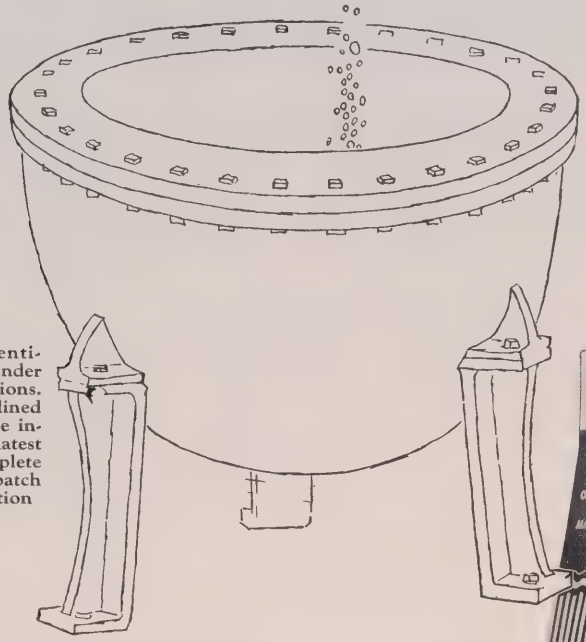


A GREAT DEAL of damage can be done to the gums by constant brushing with strongly alkaline tooth-pastes. On the other hand the use of strongly acid tooth-pastes causes erosion of the tooth enamel.

Patients need to be emphatically warned about the danger of destructive chemical actions in the mouth.

Mer Dentifrice is safely free from the chemical extremes. By having neither the acidity which erodes tooth enamel nor the excessive alkalinity which irritates the mucous membranes it may be confidently recommended, even prescribed, by the dentist.

In Mer Dentifrice there is an ideal combination of a saponaceous base with a harmless but effective polishing agent that does the necessary cleansing and polishing *thoroughly*—but safely.

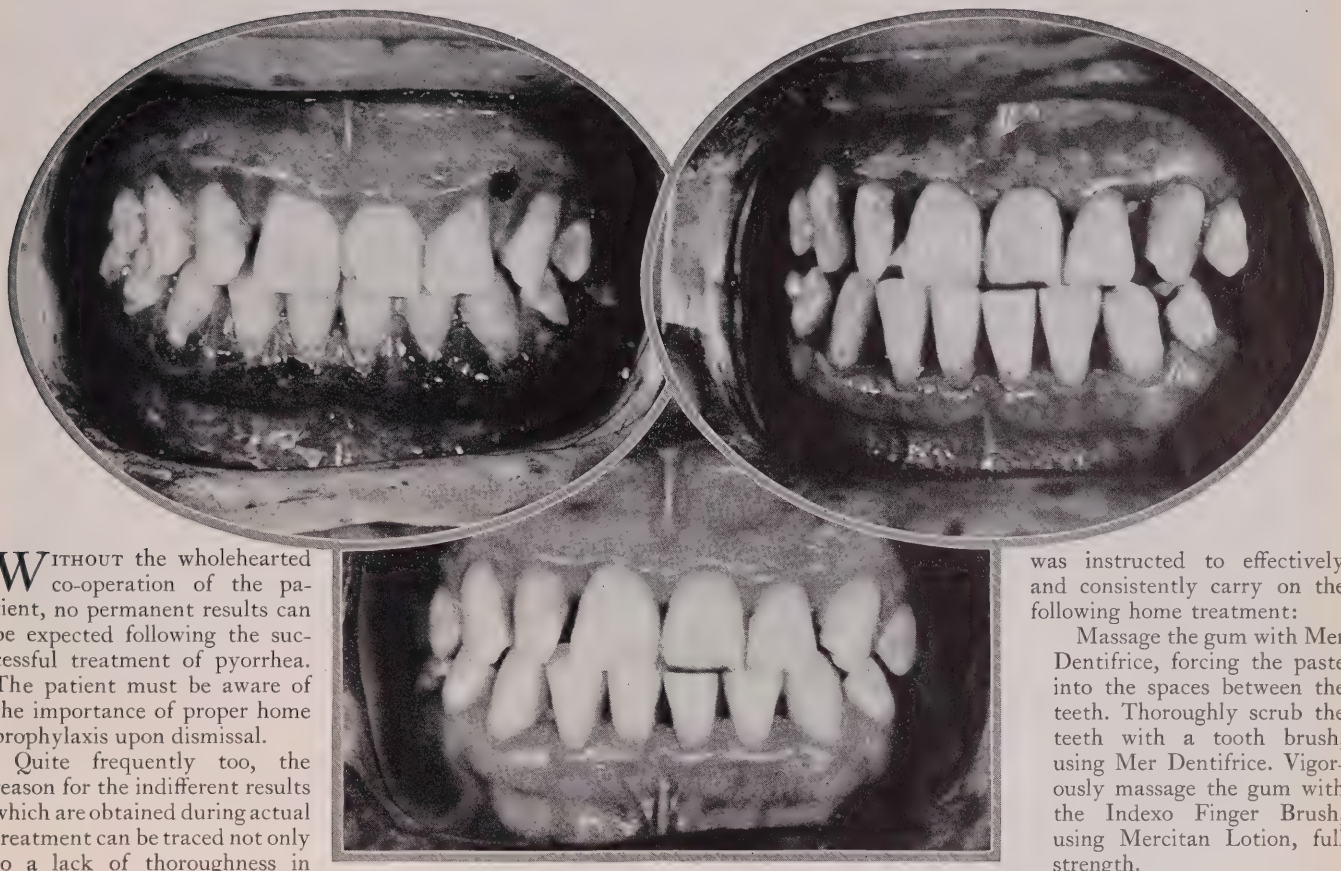


Each batch of Mer Dentifrice is manufactured under ideal laboratory conditions. The massive porcelain-lined vats used for mixing the ingredients are of the latest design to insure complete combination in the batch and maximum sanitation

MER DENTIFRICE

35c per tube
3 tube package $1.00

What Does "*Permanency of Results*" Mean in Pyorrhea Treatment?



Mercitan Case 466

Without the wholehearted co-operation of the patient, no permanent results can be expected following the successful treatment of pyorrhea. The patient must be aware of the importance of proper home prophylaxis upon dismissal.

Quite frequently too, the reason for the indifferent results which are obtained during actual treatment can be traced not only to a lack of thoroughness in administering the treatment, but also to the failure of the dentist in insisting upon the patient's carrying out his specific instructions for correct mouth hygiene at home.

If the patient presents with localized pyorrhea caused by faulty dental work or malocclusion and not by lack of care in brushing the teeth and massaging the gums, permanent results will be obtained upon the correction of these faults without any alteration in the patient's personal habits.

But the type of case for the dentist to especially recognize is the one which has developed primarily as a result of improper home prophylaxis. In these cases there is always a careless, indifferent attempt at brushing the teeth. The cleansing process is slipshod and hasty with no definite effort toward thoroughly brushing all surfaces of the teeth and massaging the gums.

This sort of neglect can easily be recognized when the patient first presents. Many patients will insist that they brush their teeth regularly. There is probably no doubt about that.

The essential fact is they do not take care of the teeth properly. To these patients correct instructions will prove to be new knowledge and the benefits resulting will accrue to the dentist's credit.

It can be said quite emphatically that pyorrhea treatment is not only successful but permanent if the dental work is properly carried out. But this result can only be obtained with the help of the patient.

The two cases described show clearly that permanent results in the treatment of pyorrhea are not only possible but should be the usual outcome in the treatment of routine cases.

The first photograph, taken on August 5, 1924, does not effectively show the severity of this case of pyorrhea.

The tissues of the mouth were so inflamed that wiping them with cotton caused profuse bleeding. The lips and tongue were quite noticeably swollen. The breath was offensively foul. The gum tissue was in a low state of tonicity.

Examination showed serumal calculus, with but little salivary calculus. There were several deep pockets and a hypertrophied condition of the gum in the interproximal spaces.

The patient stated that this condition had been gradually progressing for about three years, but had been decidedly aggravated during the past three weeks.

On August 7, 1924, treatment was commenced. Five smears were taken from different locations in the mouth, and a culture was taken from the labial pocket of the upper right central.

The teeth and roots were scaled superficially. The pockets were touched up lightly with mild Mercitan Fluid.

Before dismissal the patient was instructed to effectively and consistently carry on the following home treatment:

> Massage the gum with Mer Dentifrice, forcing the paste into the spaces between the teeth. Thoroughly scrub the teeth with a tooth brush, using Mer Dentifrice. Vigorously massage the gum with the Indexo Finger Brush, using Mercitan Lotion, full strength.
>
> This home treatment must be done at least three times each day and particularly before retiring for the night.

The patient returned on August 12, five days later. At this visit five smears from different parts of the mouth were again taken. A more thorough scaling and polishing of the teeth were carried on. Mild Mercitan Fluid was applied in the deep pockets, using the Mercitan Tampons. Mild Mercitan Cream was packed in the shallow pockets. Then a poultice of Mild Mercitan Cream was applied to the gum tissue for five minutes. At the expiration of this period the poultice was removed and the excess Cream was wiped off. The patient was dismissed for one week.

On August 19, 1924, five smears were again taken from different parts of the mouth. The hypertrophied tissue between the lower cuspid and lateral on each side was surgically removed. Applied Strong

(*Continued on page 9*)

How to Employ Reasonable Care in Protecting Liquid

With cork-screw supplied with each bottle of Synthetic Porcelain liquid remove cork and throw it away

It is a good practice to coat the neck of the bottle with a thin layer of vaseline.

This seals the joint between bottle and cap perfectly, and thus prevents any possible evaporation from the bottle.

The dropper supplied should always be returned to the bottle after using and kept inside. Otherwise it would accumulate dust and dirt which would be harmful to the liquid. Also, when left outside, crystals may form in the dropper due to evaporation of the water with a resulting harmful effect upon the liquid when the dropper is returned to bottle.

Securely cap the bottle each time after using. A quarter turn is sufficient to lock the cap on the bottle

It is not within the power of science to produce a dental cement without water.

Consequently *all* dental cements without exception—whether oxyphosphates or so-called silicates—every one *must* have water as a constituent of its liquid—and in the proper quantity.

Unfortunately but slight importance has been accredited by most dentists to the part which water plays in cementing and translucent filling operations. It is not merely a solvent, but actually *controls* the chemical reactions which change the powder and liquid into a cement.

The quantity of water is just as important as the quantity of phosphoric acid or any other constituent. When plants are robbed of their normal supply of water they wilt. Likewise, any variation in the water-content of a cement liquid, either by evaporation or absorption, will cause some lack in the normal strength of the cement.

Too much water makes for rapid setting and a direct loss in strength. Not enough water results in slow setting and a cement which has but little resistance to penetration. Hence, a lack in strength, also.

When the dentist permits a bottle of cement liquid to remain uncapped such exposure to the atmosphere is bound to cause some change in the physical properties of the cement.

Most likely that change will be caused by an evaporation of the water. But in very humid weather the liquid may actually absorb water from the atmosphere to dilute itself.

There can not possibly be a cement liquid which is *not sensitive* to these changes. We do not ordinarily observe them because they take place slowly without any marked disturbance.

However, if every dentist could see what the sensitive chemical balance discloses, all liquid bottles of every make and kind would henceforth be securely capped. The laws of nature can not be tampered with to suit anyone, either manufacturer or user.

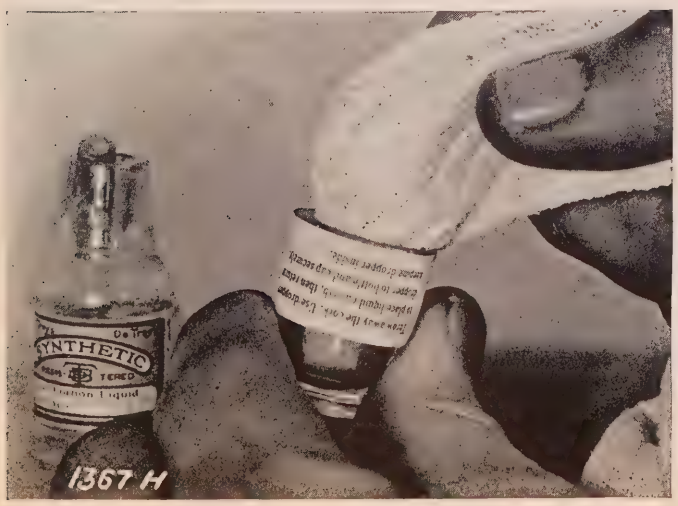
Do not pour Synthetic Porcelain liquid upon the slab from bottle. The liquid is bound to flow down the sides, no matter how carefully it is poured. Crusts will form on neck of bottle, preventing a tight seal when cap is placed

An extreme example illustrating gross negligence

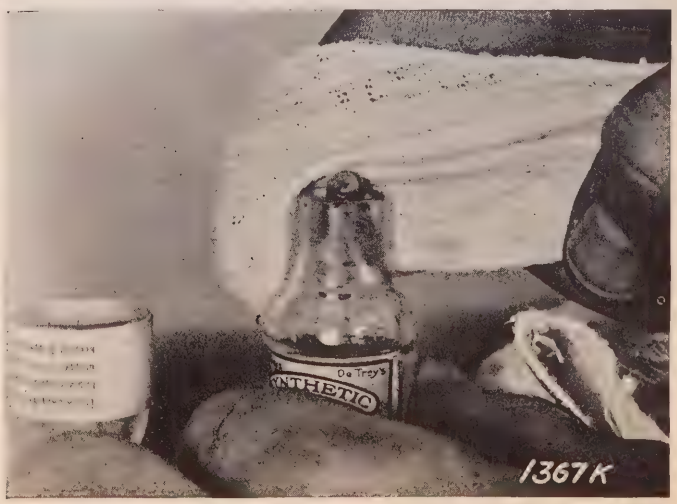
Before removing liquid from bottle agitate by repeatedly compressing rubber bulb on dropper. This act will remove any crystals which may have formed in dropper since it was last used

Never shake liquid bottle. It is not necessary. Besides, shaking throws the liquid up into the cap, and then when cap is removed the liquid will flow down over neck of bottle

If Synthetic Porcelain liquid is smeared on neck of bottle wipe out the cap carefully with a napkin or towel

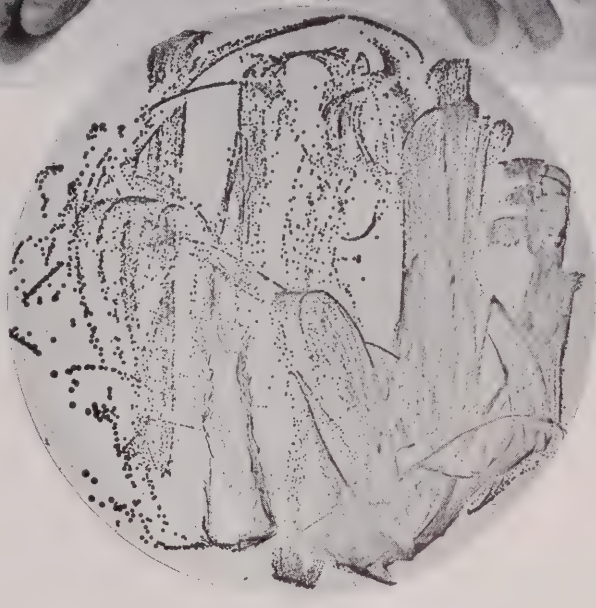


Also wipe off neck of bottle, again coat with vaseline, and securely seat cap



Photograph 1

Photograph 3



Photograph 2
Showing the Colonies of Staphylococci

Mercirex Treatment of a Case of Eczema

THE patient, a girl, aged 12 years, has suffered from an eczema of the hands and soles of the feet for the past three years. The affection is most severe in the spring and early summer. It appears in the form of small vesicles at first on the lateral surfaces of the fingers then over the entire palm and at times on the back of the hands and wrists. Simultaneously there occur patches of vesicles on the soles of the feet particularly in the region of the instep.

There is intense itching and heat and almost the slightest contact of the affected areas with any object causes pain. The hands and feet both show a marked tendency to perspire very profusely.

The vesicles are for the most part small but some, especially on the palms, are the size of a pea and tend to become confluent forming bullae of considerable dimensions.

This type of eczema known as dysidrosis is more common in adults than children. It affects chiefly the nervous, overworked persons and those suffering from malnutrition, auto-intoxications and dyspepsias or other latent infections.

The patient whose case is here reported was very much under weight (height 59 inches, weight 67 pounds), a mouth breather (adenoids), had a markedly neglected mouth (many carious teeth including first molars and gross deposits of calculus), and was of the very nervous, irritable type.

In the spring of 1924 she had a very severe attack which for many weeks failed to yield to treatment (chiefly dry dressings and Ichthyol ointments). The eruptions became infected greatly aggravating the trouble and causing a decidedly foul condition of the affected parts. At times the infection threatened to become more generalized with evidence of lymphangitis.

During the summer the affection gradually became less severe and finally disappeared, only to recur the following spring. This attack fortunately was milder

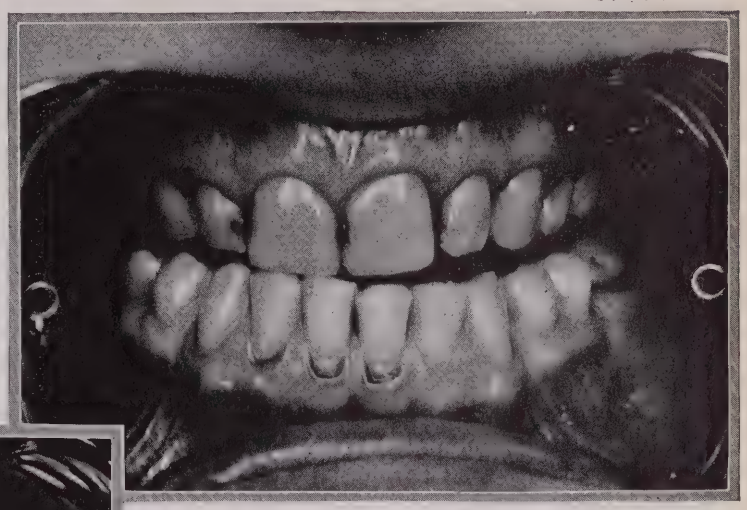
(*Continued on page 11*)

Photograph 4

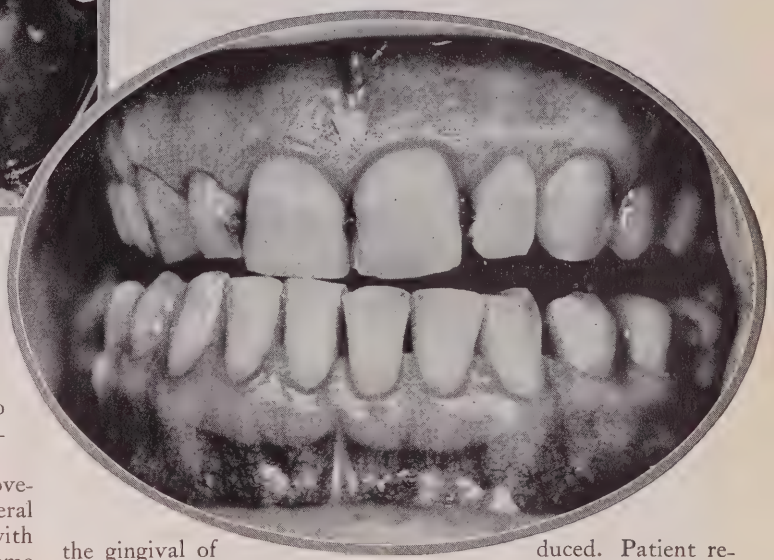
Photograph 5

What Does "*Permanency of Results*" Mean in Pyorrhea Treatment?

(*Continued from page 5*)



Mercitan Case 269



Mercitan Fluid to deep pockets and Strong Mercitan Cream to the remaining shallow pockets. The patient was dismissed for another week.

On August 26, five smears were again taken from different parts of the mouth. The swelling of the lips and tongue, observed when the patient first presented for treatment, was completely gone. The patient's breath was not nearly so offensive. A treatment of Mild Mercitan Cream was applied to the entire mouth.

On September 2, four smears were taken. The hypertrophied tissues between the upper cuspid and lateral on the left side and the upper central and lateral on the right were surgically removed. The tonicity of the tissues had been greatly improved. Patient reported that the gum did not bleed so readily and hence she was able to use the tooth brush with very little inconvenience. A treatment of Mild Mercitan Cream was applied.

Upon her return on September 9, a week later, it was noticed that there had not been a great deal of improvement. It was found, upon questioning the patient, that she had neglected her home treatment. She was warned that unless she carried on her part of the treatment, satisfactory results could not be expected to follow. A treatment of Strong Mercitan Cream was applied in all pockets. The roots of a decayed molar were removed.

On September 17 it was readily observed that a most pleasing improvement had taken place. The tissues were returning to normal color and were becoming more firm. At this sitting all of the pockets were treated with Mild Mercitan Cream.

The second was taken on September 24. Gum tissue hard, firm and normal in color. All serumal and salivary calculi removed. No evidence of pus, blood or exudate. Breath normal.

Patient reported improvement in digestion and general health. She was dismissed with instructions to continue home treatment and report in three months.

May, 1926. Almost two years after this patient was dismissed from the Caulk Clinic the third photograph was taken. Compare the hypertrophied condition of the tissues in first photograph with that in the third photograph. The gums are now in a healthy condition. This patient has returned every four months for examination to determine if there were recurrence. Her teeth have been cleaned at these intervals and in this way we have been able to keep this mouth in excellent shape.

Mercitan Case 269

April 28, 1923. Patient presented with very foul breath and badly inflamed gums. She was very nervous and complained of a "horrible" taste in her mouth. The lower centrals were slightly loose.

The first photograph taken on this date shows some calculi clinging to the gingival of the teeth and causing irritation. Serumal calculi was found under the free margin of the gum, especially in the upper teeth. Pus came out when the gums were pressed with the finger.

May 2, 1923. Mouth was sprayed with Mercitan Lotion. All accessible calculi and stains were removed from the teeth. This patient had no mechanical irritation from poor dentistry. Case was treated with Mild Mercitan Fluid and Mild Cream. Patient sent home with outline for home treatment as follows: Massage the gums with tooth paste on the end of the finger, rubbing the paste thoroughly into the inter-dental spaces. Then thoroughly scrub the teeth with a tooth brush until all taste of the tooth paste disappears. Follow this with a slight massage with the mouth partially filled with Mercitan Lotion, full strength. Instructions were given to repeat this outline daily.

May 6, 1923. The inflammation of the gums greatly reduced. Patient reported that her gums felt much better, and that she could brush her teeth without making them bleed as freely as previously.

May 10, 1923. Second photograph taken; inflammation entirely gone, gums have taken on a pink rugged appearance, and patient is very much delighted with the results obtained. Patient dismissed with instructions to continue the home treatment.

June 16, 1926. Third photograph shows the condition after over three years from the second photograph which was the time the case was dismissed. This patient has been diligent in her home treatment and has made periodic visits to her dentist to check up on her condition. The gums are pink, firm and healthy with no tendency toward recurrence.

TEN MINUTES with a PYORRHEA MISSIONARY

(*Continued from page 3*)

orrhea cures tell about pyorrhea germs."

"I know, Mrs. Borden. You probably saw many stupid advertisements proclaiming that pyorrhea can be cured by killing pyorrhea germs. No, it can't be done, because there is no such thing as a pyorrhea germ. Pyorrhea always starts as a result of irritation and when the gum is constantly irritated, infection with a motley array of microbes which are ever present in the mouth, takes place. Pus from a pyorrhea pocket is a most interesting thing to look at under the microscope. Besides pus cells, there are many forms of bacteria: rods, cork-screws, long chains, dots, and occasionally we find amoebas."

"That's interesting, Doctor. One of the first things we looked at under the microscope in the botany class at college was the amoeba. I never thought they would cause infection."

"They don't. I suppose they are really accidental invaders. Maybe they get in from our water supply which is full of microscopic organisms. Not so long ago someone suggested treating pyorrhea with Emetine—an alkaloid from Ipecac—but that never panned out."

"Do you suppose that the blood has something to do with causing pyorrhea? My sister said she heard it was systemic."

"No, the consensus of opinion is against the notion that pyorrhea is of systemic origin. My idea is that persons in poor health are more susceptible to the ravages of pyorrhea. The tissues are not as resistant to degenerative changes. I look upon systemic conditions as secondary—aggravating the condition and retarding recovery. Microscopic examination of the blood reveals nothing unusual in pyorrhea patients and so far chemical examination of the blood has shown no direct relationship."

"That's interesting, Dr. Bringhurst, but I am afraid I am taking up too much of your time."

"I am always glad to talk to patients who manifest an interest in dentistry. My next appointment is three-thirty. Sometime ago I heard a lecturer say that pyorrhea was due entirely to faulty diet. That man should have known better but he was probably going a little strong to put across his point of view. Anyway, his recommendation against too much sugar and candy and for more fruit and raw vegetables was good. A simple wholesome diet with plenty of butter, eggs and milk is decidedly beneficial not only in pyorrhea but generally."

"You said that pyorrhea was due to irritation. Do you mean it is like cancer?"

"Why no, in cancer we have a wild and unrestrained growth of tissues. In pyorrhea we see only degeneration due to inflammation and infection following irritation. In many cases faulty dental work is to blame although I more often find it to be caused by neglect. Tartar deposits on the teeth and impinges on the gum causing severe inflammation. But more harm is done by invisible deposits of tartar underneath the gum. For some reason, little particles of tartar are deposited upon the root of the tooth from serum and hence we call it serumal tartar. It is the most difficult to locate and remove."

"Doctor, is it much of an operation to remove tartar?"

"Yes and no. We employ instruments like these which we call scalers. Different forms for the various locations in the mouth. Very delicate ones are used underneath the gum and the heavier ones for salivary tartar which is deposited by saliva. Skill acquired by practice makes it quite easy for the patient and there really is no pain. But the work takes time.

"In some cases the irritation is caused by mal-occlusion or traumatic occlusion. The teeth do not strike normally because of the shifting caused by missing teeth or because they came in crooked. In many cases this can be corrected by straightening or grinding."

"What do you think caused the pyorrhea in my case, Doctor?"

"Well, your teeth appear to occlude perfectly but to be certain it would require further examination. There is a pocket at this second molar which was undoubtedly caused by irritation from that overhanging amalgam filling. Around the lateral here it looks like serumal calculus. Between the two bicuspids it is impaction of food due to faulty contact points. That crown on the first molar is impinging on the gum and has caused quite some inflammation although there is really no pocket yet. There are one or two other places which need attention."

"That sounds as though I have a bad case, Doctor Bringhurst."

"No, your case is really mild and should respond to a few treatments. The trouble is that most people come to the dentist too late. The teeth are often loose and pus has destroyed so much of the investing tissues that there is no hope. Therefore we must resort to extraction. It would be a great thing if we could get everyone to visit a dentist at least twice a year in order to prevent the horrible cases that one sees every day."

"Isn't it strange that people do not know of these things?"

"Perhaps the stupidity of man is to blame. Often people neglect to go to a dentist because of the expense and yet waste hundreds of dollars foolishly. You can understand that preventive treatment is much cheaper than permitting teeth to decay and abscess and become affected with pyorrhea. The expensive things in dentistry are generally the result of neglect because people let their mouths go to rack and ruin. When discomfort, pain, bad breath and poor health bother them they go to a dentist and expect him to do the impossible."

"I suppose if we started to visit a dentist from early life it would be possible to prevent all these troubles."

"Quite so. We must start with the child—for that matter the expectant mother. We must teach the importance of lime and mineral salts, vitamines, muscle-building foods. When the child is old enough we must teach it to brush the teeth and massage the gums properly. Nowadays it is always, 'Peggy have you brushed you teeth?' Why not watch Peggy to see that she does it properly and regularly?"

"I would like to have you treat me, Doctor Bringhurst, for I am convinced from what you say that you can do wonders. Only I have taken up so much of your time."

"That's all right. Would it suit you to come in on Thursday at one-thirty?"

TEN PATIENTS, TEN TREATMENTS EACH

BOTH the strong and mild Mercitan Fluid and Cream are required in the two stages of treatment to get maximum results. Good judgment warns against employing the same strength medicament for both incipient and far advanced cases.

After all, success with speed is essential. And using just the right strength fluid or cream as indicated by the condition of the case at each visit brings most *rapid* action.

The complete package sells for $10.00. The Cream separately, either mild or strong, is $3.50 per jar—the Fluid $1.50 per bottle.

MINIMUM MERCITAN UNIT

Price $ 21.90

Mercirex Treatment of a Case of Eczema

(*Continued from page 8*)

and the lesions healed in the course of five or six weeks.

Early in May of this year the trouble again appeared in very severe form. When seen on May 13th there were very extensive lesions involving the whole palmar surfaces of both hands as well as the lateral surfaces of the fingers.

Photograph No. 1 was taken at this time and shows quite clearly the extent of the lesions. The soles of the feet were also the seats of similar lesions. There were many small and medium sized vesicles located deep in the epidermis.

On the palms there were large bullae containing thick slightly yellowish purulent fluid. One of these lesions was cleansed with alcohol and the contents cultured in broth. Microscopic examination of some of the fluid revealed the presence of numerous leucocytes and cocci. The broth culture developed a growth of staphyloccus. Plating on litmus lactose agar showed a pure culture of staphylococcus.

Photograph No. 2 was taken of one of the plates and shows the colonies of staphylococci.

The following treatment was instituted.

The hands were kept immersed for several minutes in warm water made soapy with Mercirex soap. They were then carefully washed with a soft cloth in the same water. This treatment was continued for about ten minutes.

After careful drying with a soft towel without rinsing, the lesions were treated gently with a 2 per cent phenol solution. This was allowed to dry and then Mercirex cream was gently massaged into the skin over the affected parts.

Castor oil was advised to be taken at bed time and a diet to include fresh, green vegetables, fruit, milk and eggs.

For Mercirex home treatment, the hands and feet were washed with Mercirex soap and warm water and the Mercirex cream applied as above night and morning. Whenever the itching became troublesome the cream was applied to the affected areas.

The treatments were continued until May 17th (four days) when photograph No. 3 was taken. This shows a considerable improvement over the original condition. A large portion of the palmar surfaces is free from any lesions and elsewhere no new vesicles have appeared. The hands are much less sensitive and the treatment has greatly relieved the intense itching.

On May 20th (seven days after beginning treatment), photograph No. 4 was taken. Here one sees the complete absence of vesicles and, with the exception of some of the dead epidermis which has not yet been shed, a practically normal condition of the skin. The wrinkled condition of the palms is owing to the drying effect of the air on the new healthy skin after shedding of the dead epidermis.

Photograph No. 5 was taken four days later and this shows a completely normal condition of the skin. The lesions on the soles of the feet have likewise healed satisfactorily.

This case illustrates quite forcibly the efficiency of Mercirex in the treatment of eczema. Mercirex relieved the troublesome itching and thereby prevented in a large measure the scratching of the lesions with the almost invariable introduction of infection.

With infection already present Mercirex proved effective in destroying the invading microorganisms. The patient was rendered comfortable, enjoyed proper rest and after a brief period of treatment was relieved of the annoying presence of unsightly lesions which were the cynosure of fastidious and critical eyes, especially at school.

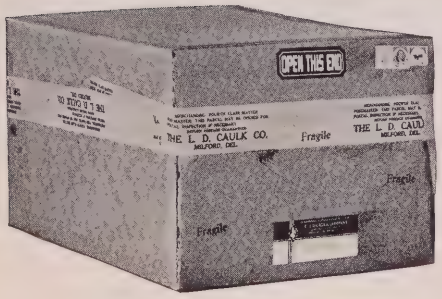
Report of Osogen Case Five Years Old

(*Continued from page 2*)

to extract the tooth under absolutely sterile procedures and take cultures from the apex and the apical area where the filling-in has taken place. But you know how much chance I have of doing this.

"Unfortunately, I have no duplicates, except of the last film in this series so while I would very much like to give these to you to add to your library, I shall really have to ask you to be kind enough to return them to me when you have done everything you want to do with them. Possibly you could make duplicates of these if you really wanted them. A record like this is a great argument to place before patients not to mention the value of such a record in discussing the subject with other dentists and physicians."

The 12-50 Mercitan Lotion Outfit



Here is the way the 12-50 Outfit looks when it arrives in your office. The carton is packed and *sealed* in Milford and is not opened again, even by your dealer, until it reaches you

The *economical* way to purchase Mercitan Lotion is in the special 12-50 outfit. It contains twelve regular size bottles and fifty small dispensing bottles. ¶ Then, too, the lotion as it comes to you is concentrated to quadruple strength. It would be a needless expense to pay express charges on water just to give bulk to the quantity. ¶ Consequently, by the time you have diluted the lotion, ready for use at the chair or by the patient at home, there will be four times the original quantity. ¶ In other words, for the regular retail price of twelve 8-ounce bottles ($12.00), you actually receive two hundred and eighty-eight ounces of ready to use lotion from the large bottles plus the three hundred ounces from the small dispensing bottles. ¶ Had you considered in these terms the enormous quantity of Mercitan Lotion contained in the outfit pictured above? No wonder it is the economical way to purchase

MERCITAN *Mouth & Throat* LOTION

Printed in Canada, The L. D. Caulk Co. of Canada, Limited, 172 John Street, Toronto

The Armac Press Limited
Toronto, Canada

Gingival Irritation *Corrected By* Amalgam Restoration

CANADIAN EDITION

MILFORD NEWS

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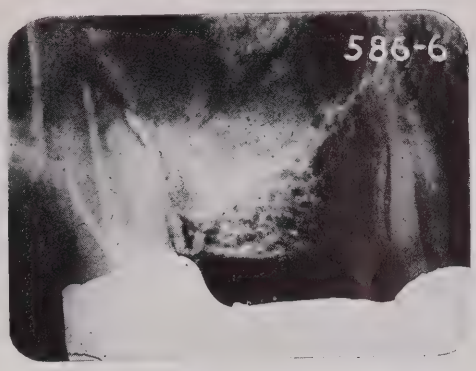
Also in this Issue

Osogenation of A Complicated Molar

Mercirex Home Treatment of Local Staphylococcic Infection



Osogenation of A Complicated Molar

Case 586, February 2, 1925. Patient, Mr. E. R., presented with a very sore jaw. Radiographic and clinical examinations revealed a troublesome upper right first molar which serves as a bridge abutment.

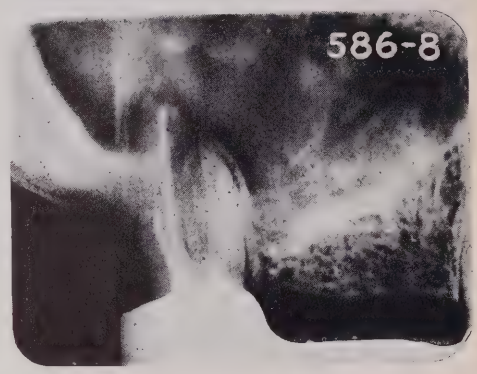
Rubber dam was placed and an opening made into the pulp chamber through the occlusal surface of the crown. Cultures were taken from the pulp chamber.

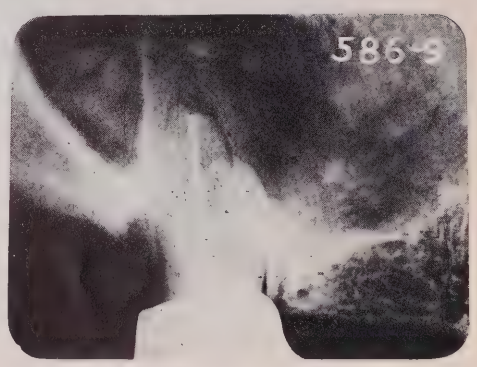
Upon opening into the root-canals the pulps in the disto-buccal and lingual roots were found to be putrescent to the apex. However, there was sensation in the mesio-buccal root at the opening of the canal.

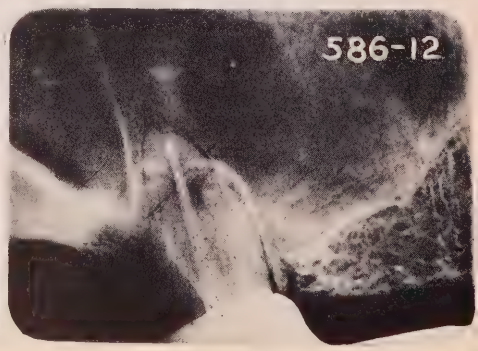
By examining radiogram 1 it can be seen that there is a rarified area at the apex of the lingual canal and a normal condition about the apices of the two buccal roots.

A nerve block was given and the vital pulp removed from the mesio-buccal root. This canal

(*Continued on page 11*)







Gingival Irritation *from* Crown *Corrected By* Replacement with Amalgam Restoration

The crown, shown in radiogram 1, was placed sometime in the year 1912. Faulty contact points allowed the impaction of food into the interproximal spaces, causing some discomfort for the patient. Other than that no difficulty was noticed by the patient for a few years afterwards.

In 1925 the patient was examined in the Caulk Clinic. It was found that the crown did not fit at the gingival. The exposed cement had disintegrated making an ideal recess for the lodgement of food debris.

The surrounding gum tissue was inflamed. A hole had worn through the occlusal surface. In fact, the conditions present were typical of those always resulting from similar cases, which every dentist encounters so frequently.

Radiogram 1 also shows the recession of the alveolar crest caused by the constant impaction of food. The periapical conditions, however, appeared to be normal in this radiogram.

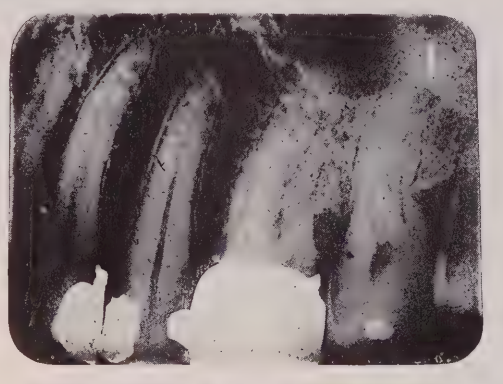
The crown and cement were removed. Upon excavating in the large cavity, the pulp was found to be vital. Considerable secondary dentin had been deposited on the floor of the cavity. The enamel was intact on the buccal and lingual surfaces.

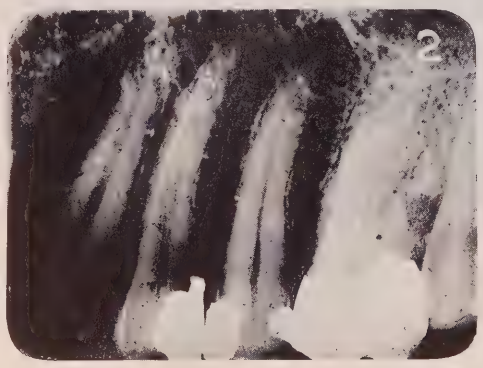
After considering these factors it was decided to prepare an M.O.D. cavity and restore the molar with Twentieth Century Amalgam.

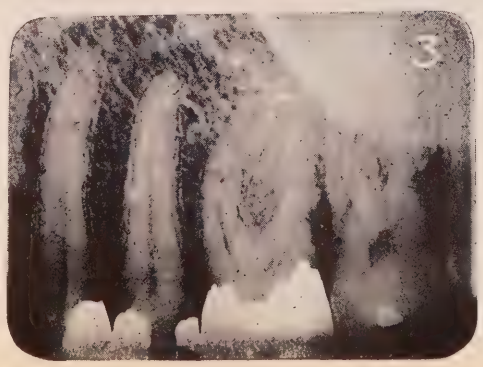
The tooth was isolated with cotton rolls. The cavity was then sterilized with phenol, followed by the placing of a layer of Thymozin over the deeper portion of the cavity.

Upon adjusting a continuous matrix band, a little Caulk Cement was smeared over the cavity walls. Immediately afterwards, a small portion of amalgam was packed into this plastic cement.

Note the contour and cusps with the ridges and inclined planes







The margins were again cleaned and the restoration completed with amalgam, making what may be termed an "amalgam inlay."

Radiogram 2 was taken after completing the restoration in order to check the gingival margins. This radiogram also shows an over-hanging amalgam filling in the first bicuspid. The excess amalgam was removed and the interproximal surface polished.

Owing to the fact that the gingival tissues were severely inflamed and infected the patient was given four Mercitan treatments at weekly intervals.

Radiogram 3 taken one year later shows the molar restoration and the bicuspid filling to be intact.

In this case the removal of the gold crown and the restoration of the molar tooth with amalgam followed by correction of the bicuspid filling, have eliminated the cause of irritation to the gingival tissues. At this time the tissues are firm, pink, and in healthy condition.

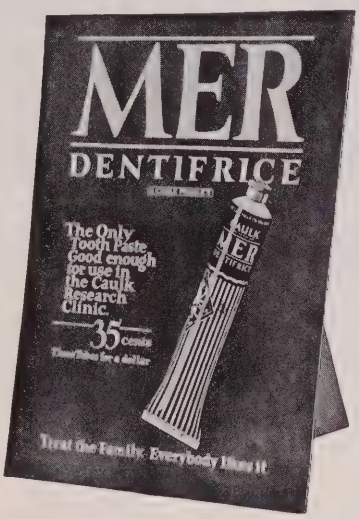
The patient reports complete relief from the previous, more or less continual, irritation caused by the impaction of food into the interproximal spaces.

The large photograph shows the external appearance of the amalgam restoration. Note the contour and cusps with the ridges and inclined planes. The restored molar articulates perfectly with the lower.

This case clearly demonstrates how advantageous it is to remove badly-fitting crowns from molar teeth and to restore these teeth with amalgam according to the technic described in this report. By removing the crowns, a mechanical irritant to the gum tissue, which would eventually lead to advanced pyorrhea, is also eliminated.

There's No Defense For Grit in Tooth-pastes

NO MATTER where you may find Mer Dentifrice advertised, in drug stores or in professional publications, all extravagant claims tending to cater to popular but erroneous beliefs are notably absent. ¶ The counter card below is typical of the conservative statements made.



TO be sure, we merely state what you already appreciate. Grit—hard, sharp, angular and rough particles—should never be incorporated in tooth-pastes. But how can you discriminate against those tooth-pastes that actually do contain coarse grit?

Of course, grit will remove tartar and plaques most effectively. Teeth feel clean after brushing. But they also lose their natural luster.

And a most harmful scratching of the enamel occurs with irritation of the gum tissue from the sharp, needle-like particles.

The abrasive in Mer Dentifrice is pure, *gritless,* precipitated chalk recognized the world over by dentists as the safe, frictional agent.

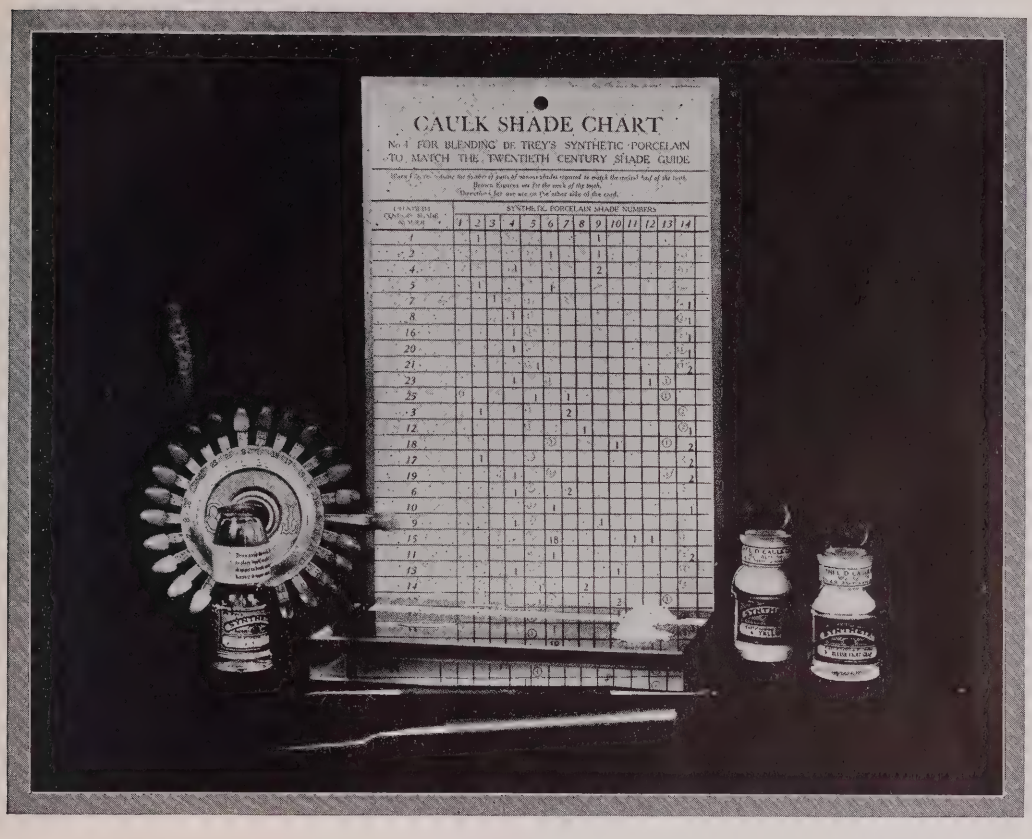
This chalk is several degrees softer than the tooth enamel. Hence, in removing hard and soft tartar deposits with Mer Dentifrice there is no wearing, abrading, or scratching action.

It is a fact that Mer Dentifrice has incorporated in it all of the desirable properties that are insisted upon by dentists who give careful thought to the necessary requirements.

To avoid Grit in Tooth-pastes

MAY WE SUGGEST THAT YOU PRESCRIBE AND RECOMMEND

MER Dentifrice



How To Find The Right Formula

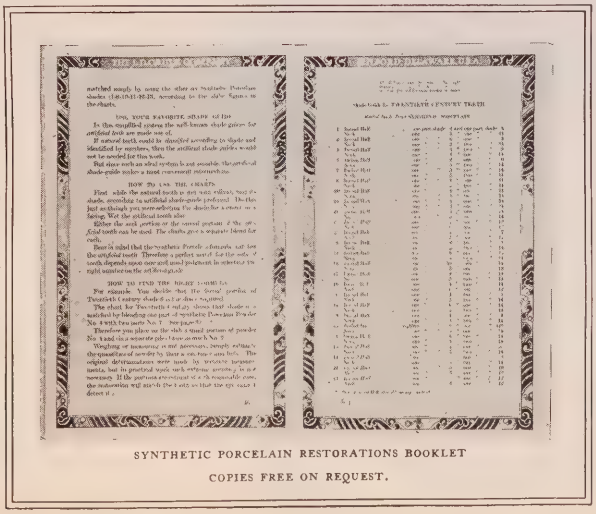
THERE is no mystery about perfectly matching any tooth and any part of it. You simply decide that the incisal portion of shade 9 of the Twentieth Century shade-guide is exactly the shade you require.

Then consult the Caulk Shade Chart for blending de Trey's Synthetic Porcelain to match the Twentieth Century Shade Guide. We gladly furnish these charts without charge to you.

The Chart shows that shade 9 is matched by blending one part Synthetic Porcelain Powder No. 4 with one part No. 9. Therefore, you place on the slab a small portion of No. 4 and (in a separate pile) approximately the same quantity of No. 9.

Weighing or measuring is not necessary. Simply estimate the quantities of powder by their appearance and bulk. The original determinations were made by accurate measurements, but in practical work such extreme accuracy is not necessary.

If the portions are estimated with reasonable care, the restoration will match the tooth so that it will be invisible at a speaking distance. Off-color work is inexcusable.



SYNTHETIC PORCELAIN RESTORATIONS BOOKLET

COPIES FREE ON REQUEST.

Dental Congress Closes A Record-Breaking Session

THE Seventh International Dental Congress is over. Its approach was heralded in every conceivable manner. Those who were fortunate enough to accept the invitation to attend have now returned to their homes and practices with a vaster reaching vision of the principles of modern dentistry.

Unquestionably this Congress was the greatest conclave that dentistry has ever held. Dentists from every land and clime were in Philadelphia during that week; dentists who fill the teeth of kings as well as dentists who minister to commoners; dentists whose research and discoveries have echoed around the dental world; who are hailed as leaders without the profession itself as well as within.

All were here rubbing shoulders with each other and at the same time presenting new methods of treatment, and new ideas that will go a long way toward advancing modern dentistry to even a higher plane.

The outstanding distinction of the Congress is that since the period following the St. Louis session, twenty-two years ago, has been the most notable in the development of the profession of dentistry, then this meeting came as the climax of a quarter-century of great dental progress.

Another noteworthy aspect of the Congress is the bearing which it will have upon a closer relationship of interests between the medical and dental professions.

The dental achievements of the last decade were demonstrated in a most convincing and capable manner and, hence, they are bound to establish dentistry for all time as a great agency for the promotion of public health on an equal standing with medicine.

Just a word about the manufacturers' exhibits. It would have required hours of an interested dentist's time to give even a hasty inspection of most of the exhibits in which he would have been especially interested.

(*Continued on page 8*)

The Differenc

Above

Plenty of Silver But Coarse Texture

If a high-silver-percentage alone could make good alloy, this sample should have been fit to put into a tooth. But even though amalgamated and packed strictly according to its manufacturer's directions, good fillings cannot be made with it. Notice the open structure, with many cracks and folds. Expansion and shrinkage go on alternately for a long time.

You would naturally expect the manufacturer of a dental amalgam to be intimately acquainted with its individual properties. Who else, then, would be a better authority to consult in learning how to manipulate this particular amalgam?

This seems like logical reasoning. In practice, however, the recommendations of all manufacturers can not be successfully relied upon.

The reason may be owing to the fact that the technics recommended are based upon long standing beliefs which are no longer accepted as authentic. Faulty notions about scientific problems have a way of being handed down by constant repetition and either are not subjected to an actual experiment or else are based upon tests made by methods and apparatus that were too crude to yield anything but unreliable or misleading results.

Can you imagine an amalgam restoration being satisfactory that would be made from the specimen illustrated at the upper left on this page? And yet the recommendations of this particular manufacturer were rig-

Amalgam Mad Centu

Not polished. M

Notice the fine-grained, unifo produces the margins at the the lower ends of the other cyli Century Amalgam packs tight makes a close strong union and remains exactly as you fi or flow. The restoration will tooth will n

of economic interest to all pr were made under identical w quantities of alloy and merc same packing strength; in fac of alloy used. ¶And yet the c bulk than the cylinder at the l size is that the alloy used in m Century. Another fairly po cylinder at the left. ¶Conse thoroughly dependable in eve to use because of its consider

At the right

Another Example of Coarse Texture

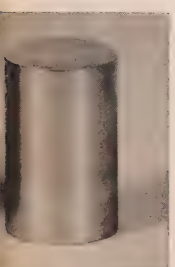
This alloy contains silver enough to give it a rating in the high-silver class, nevertheless it cannot make a good filling because it is coarse-grained, full of holes and cracks. Even under heavy pressure this amalgam does not give good adaptation on cavity walls and margins.

in Amalgams

rom Twentieth Alloy

ied 22 diameters.

xture and see how well it re- of the mold. Then compare shown on this page. Twentieth olid into all angles-of-retention, all cavity walls and margins, , without crack, fissure, break ts bright silver color, and the n dark.



amalgam cylinders tell a story dentists. ¶The two cylinders onditions—precisely the same same trituration period; the ly variation was in the makes at the right has 22.5% greater he reason for this variation in larger cylinder was Twentieth loy was used in making the not only is T. C. Amalgam but it is the most economical ıter bulk.

idly followed with especial care and accuracy being exercised in the controls.

Without devoting an enormous amount of time and energy to highly technical investigation how can you be positively certain that the alloy which you select is free from all impurities and, hence, will be wholly satisfactory for you in every way?

While the narrow limits of this discussion do not permit including a detailed description of the accurate methods employed in testing Twentieth Century Amalgam and others in the physical laboratory of the Caulk Dental Research Institute, yet the foregoing statements and the illustrations on these pages should indicate in a general way at least how accurately are measured the strength, flow, hardness, and other mechanical properties under definitely controlled conditions.

Consequently, in selecting Twentieth Century Alloy and Twentieth Century Mercury for your amalgam work, you may confidently rely upon all of the statements made in our publications on the subject.

Above

Too Much Trituration

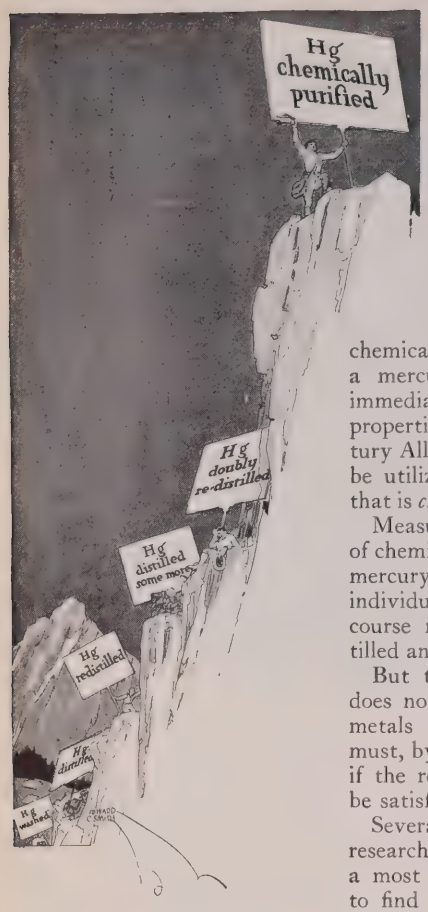
This amalgam was mixed too long. It began to crystallize before it was packed. It is stubborn to work with; difficult to condense and likely to shrink too much and then expand too much. Notice particularly the lower end of this cylinder. Even under heavy pressure this amalgam did not conform to the shape of the mold. The same fault will occur at the bottom of a cavity in a tooth.

Trituration: The act of pulverizing, rubbing or grinding alloy and mercury in a mortar or mixer until the texture becomes smooth and fine.

At the left

Not Enough Trituration

this specimen shows the results of hasty mixing. The mercury at first is only in contact with the outside surface of the alloy particles. It continues to soak into the particles long after the filling is in the tooth, causing shrinkage or expansion, or both, alternately. Amalgam like this cannot make a dense, solid filling.



CAULK MERCURY Is Made For Dentistry First

IN the materials used by dentists there can be no successful substitute for purity.

No better illustrative example can be cited than the various brands of mercury now being used by dentists. For a good many years no one bothered a great deal about the properties of mercury. Just any mercury seemed to be satisfactory.

But when an alloy appeared that was both physically and chemically pure the demand for a mercury equally pure was immediate. The indispensable properties of Twentieth Century Alloy, for instance, cannot be utilized without a mercury that is *chemically* pure.

Measured by the rigid terms of chemistry all of the brands of mercury now being used are not individually chemically pure. Of course most of them are distilled and even redistilled.

But this distillation process does not remove the dissolved metals in the mercury which must, by all means, be removed if the resulting amalgam is to be satisfactory in every way.

Several years ago the Caulk research laboratories carried on a most thorough investigation to find a method in harmony with the fixed laws of chemistry that would purify Caulk mercury so that there would not be even the slightest contamination—nothing but mercury.

The results of this investigation revealed that in order to get rid of the dissolved metals such as lead, arsenic, bismuth, copper, cadmium, antimony or mercuric oxide the mercury must be chemically purified by a special process and not merely commercially purified.

An expert metallurgist will tell you that even a very minute adulteration causes a marked change in the properties of mercury. Consequently, how necessary it is for the obtaining of permanently good amalgam work that both alloy and mercury have extreme purity.

Caulk Mercury, though chemically pure at first can become easily contaminated. Hard rubber containers should not be used, since vulcanized rubber contains sulphur. Mercury and sulphur have a peculiar affinity for each other, and such a container will contaminate the purest mercury.

Then too when you purchase Caulk Mercury in the glass bottles you can actually see its purity. There is no defense for using thick pottery jugs as containers, except to maintain privacy for the "drug store" kind of mercury which obviously should not be used in dentistry.

To make your amalgam work a source of pride as well as profit purchase only Caulk Twentieth Century Mercury that has been specifically prepared for dental purposes and Twentieth Century Alloy that corresponds with it in modern dental requirements.

The clear glass pound bottle makes the extreme cleanliness of Caulk Mercury plainly visible

Quarter-pound quantities in wooden shakers and glass bottles

Dental Congress Closes A Record-Breaking Session

(*Continued from page 5*)

Never before in the history of the dental industry has there been such an elaborate display of dental products. Truly, it was an extraordinary exhibition.

It is all over. Those who attended will have a wealth of practical information to draw upon in conducting their practices in the future. Those who could not attend will never know what they have missed.

After Ten Years

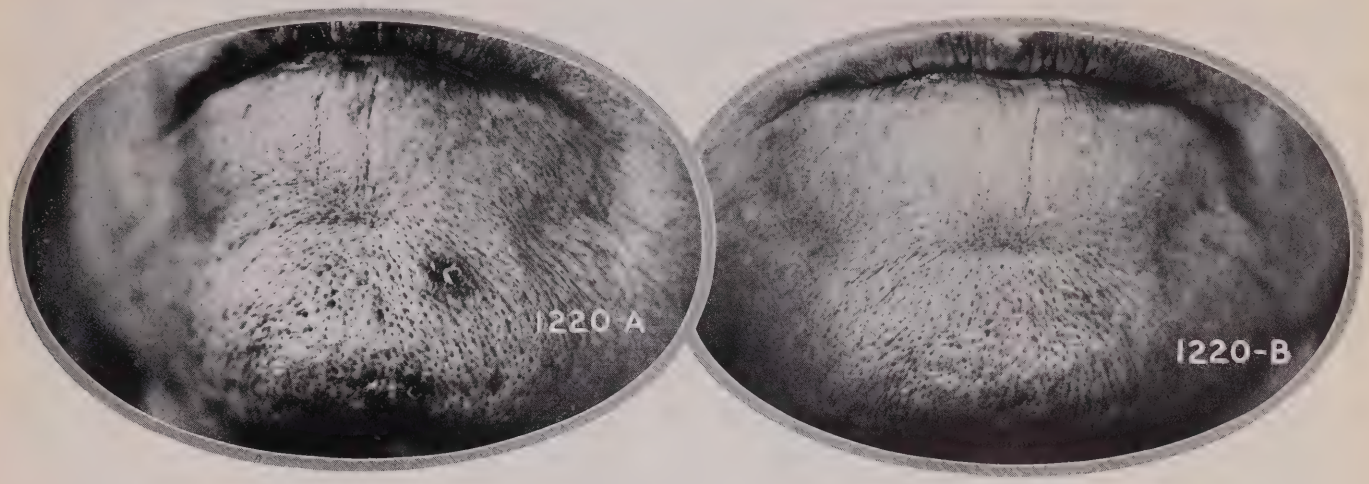
"I have used the sample jar of Mercirex which you sent me some time ago and am well pleased with results. My trouble is located just below the left knee. Before beginning with Mercirex the skin was very dense with a crust fully one-eighth of an inch thick. Now the crust is completely gone and the skin is very nearly normal. This trouble is of ten years' standing and during this period have tried all sorts of remedies suggested by physicians. Your treatment, Mercirex, has given the best results by far."—*Mitchell, Ill.*

It Does Exactly What You Claim

"I received your most generous sample of Mercirex Treatment you kindly sent me some time ago, for which I wish to thank you. Your treatment does exactly what you claim it will do. The results I am receiving were really surprising to me since I have unsuccessfully used almost everything on the market to cure my skin of pimples and blackheads. I don't ever want to be without Mercirex. The Soap is the best I have ever used.—*Atlantic City, N. J.*

Your Mercirex Cream has been a blessing to my hands. Had a rash, or form of eczema, for the last fifteen years. I have used Mercirex two weeks and all signs of infection have left my hands. I wish you all the success possible with your wonderful products.—*Oshkosh, Wis.*

One man does $5000.00 a month. Another man can't do $5000.00 a year. The difference is simply in the opinion the man has of himself.



Mercirex Home Treatment of Local Staphylococcic Infection of Skin of Face

THE patient, a middle aged lady, reported March 9, 1925 at the clinic for pyorrhea treatment. During the course of the examination she complained of suffering considerable annoyance and pain from several lesions of the skin on the chin.

She stated that upon her return home from a visit to a distant city about a week previously the sores appeared and in spite of energetic home treatment with several remedies they tended to increase somewhat in size.

Photograph No. 1220-A shows the appearance of the lesions at this time.

There were two areas about ½ cm. in diameter and two slightly smaller spots. The eruptions were slightly elevated, of dull reddish appearance with the center covered by a thin scaly scab.

Upon removing the scabs there was found a purulent collection and more or less oozing of bloody serum.

The surface of one of the inflamed areas was carefully cleansed with alcohol and the scab gently removed with a sterile scalpel. Some of the sero-purulent exudate was then plated on litmus lactose agar. After 24 hours incubation, numerous whitish colonies developed which microscopic examination showed to be staphylococci.

After preparing the culture a small quantity of Mercirex Cream was applied under a gentle massage to each of the affected areas and the neighboring healthy skin.

The patient was advised to use no cosmetics on the face but to wash thoroughly with warm water and Mercirex Soap. After drying with a soft towel then gently massage Mercirex Cream into the affected parts and surrounding healthy skin.

It was advised that this treatment be carried out morning and evening. In case of itching also apply the Mercirex Cream during the day.

The patient reported later that she followed these instructions and noticed a decided improvement after the first day. Our examination on March 10 disclosed a diminution in the size of the lesions with less inflammation.

The patient continued the same treatment and reported back to the clinic on March 18, at which time photograph No. 1220-B was taken showing the skin in a normal condition.

This booklet on skin diseases has just been published to be distributed to physicians throughout this country.

The text, therefore, has been written from the point of view of the physician rather than that of the dentist. However, you would very likely be interested in reading the professional statements made in it.

We shall gladly forward a copy to you upon receiving your request. Just ask for the new booklet on Mercirex Treatment.

T. C. Alloy and Its Accessories

Avoid Amalgam Scrap

MANY a dentist would be toppled over with grief if he were told in dollars, *not* cents, the alloy and mercury which he wastes in the course of a year. It's true the *amalgam scrap* left from each restoration seems insignificant. But accumulate several scraps in one pile. It would look like a mountain then.

To avoid having amalgam scrap, use the Caulk Alloy-Mercury Gage to control the quantities of alloy and mercury in each mix. With one stroke of the plunger it brings forth just enough of both metals for a small mix already measured in correct proportions. It operates with T. C. filings.

Price, $7.50

No Soggy Surface

CAULK Hard Felt Wheels are made *right* to be used with Caulk Dental Polish. The felt is so dense and firm that the surfaces of the wheels never become soggy. They polish faster and last longer. Two DOZEN, assorted, in box with mandrel **$1.60** per box.

No Chemical Action

JUST the thing to produce a glossy-luster to an amalgam restoration —also to gold and Synthetic Porcelain. It works by a natural process of smooth abrasion without the slightest chemical action. Does not scratch or etch the most delicate surface. PRICE **85 cents.**

A Patented Purity

COMPARING formulas is not the accurate method to be relied upon in judging high-grade alloys. For the most part the formulas are essentially alike.

The difference lies in the method of manufacture. Probably the most important factor is the degree of purity. How free is the alloy from oxides, sulphides, and other impurities which hinder amalgamation and remain in the mix as impurities and dirt.

Twentieth Century Alloy is purified by a patented chemical process which no other alloy manufacturer employs. Every particle is perfectly clean.

It complies with the specifications of the Bureau of Standards for strength, minimum volume change and minimum flow. It also contributes to amalgam restorations a unique color of silver and freedom from pitting, corrosion and tarnish, since it contains no contaminating impurities.

SPECIFY TWENTIETH CENTURY ALLOY FOR HIGH-GRADE APPEARANCE AS WELL AS PERMANENCE IN AMALGAM

SPECIAL QUANTITY RATE—20 ounces at **$2.60** per ounce, **$52.00**.

Nothing But Mercury

CAULK Mercury is not merely redistilled. Such a process cannot take out the dissolved metals. But the Caulk purification process does it perfectly. This Mercury is free from lead, arsenic, bismuth, copper, cadmium, antimony, or mercuric oxide. You may safely depend upon its purity. Notice how the clear glass pound bottle makes the purity and cleanliness plainly visible. With T. C. Alloy always use Caulk Mercury.

When Speed Is Essential

THOROUGH trituration increases the strength of amalgam. Hence, any device that triturates, rubs, and combines alloy and mercury in a perfect plasticity in a fraction of the time required for ordinary methods is an invaluable aid. The Caulk Amalgam Mixer is such a device. It operates on all dental handpieces, without doing the slightest damage to either the handpiece or motor. PRICE **$5.00**, complete.

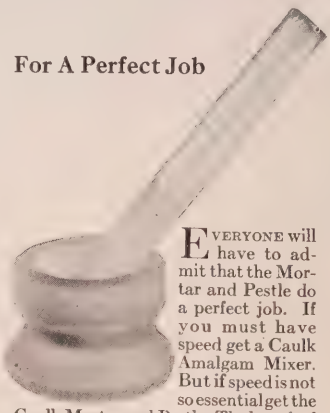
10 Against 200

THIS Caulk set of ten Stellite Amalgam Instruments does all the necessary work with handy speed. All lost motion, necessary to sorting over two hundred or more instruments to select one, is avoided.

Set of TEN STELLITE INSTRUMENTS in special case **$25.00.**

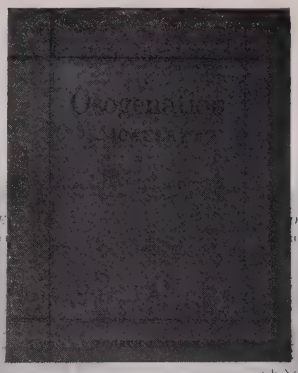
Set of TEN STEEL INSTRUMENTS **$14.00.**

For A Perfect Job



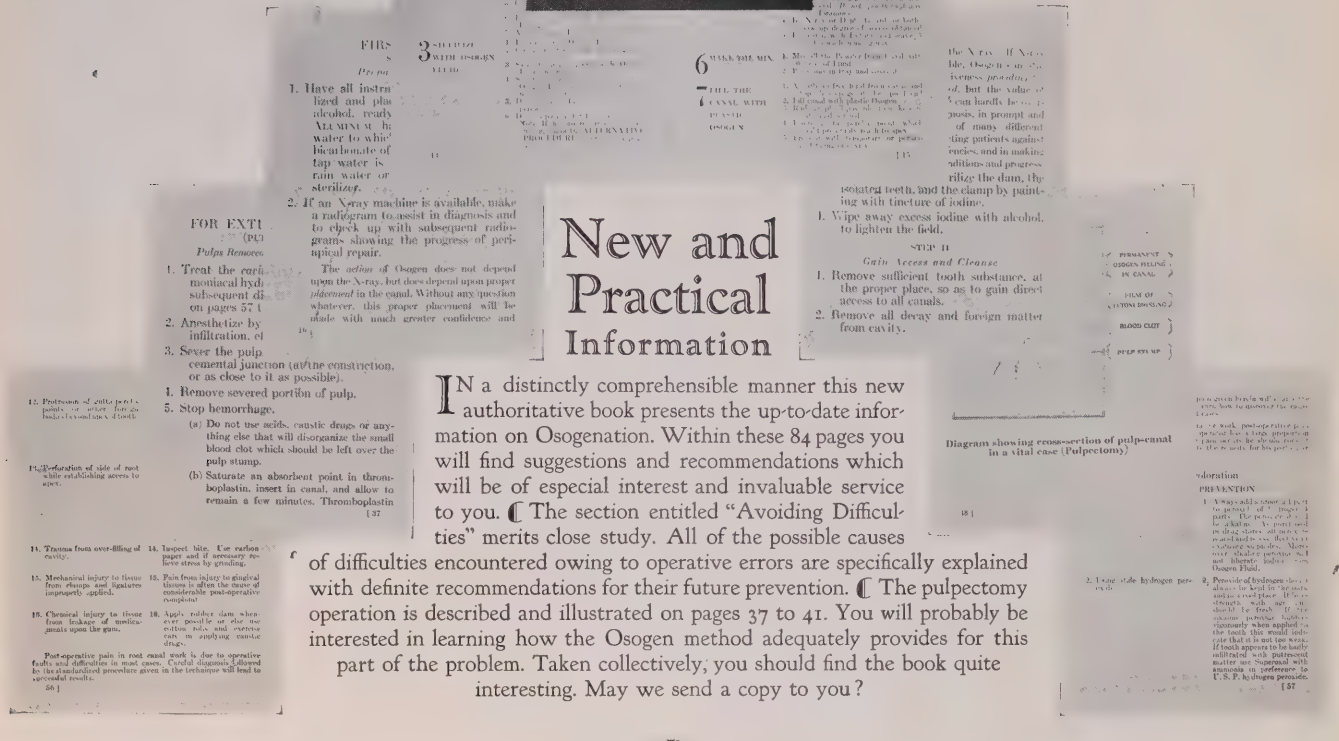
EVERYONE will have to admit that the Mortar and Pestle do a perfect job. If you must have speed get a Caulk Amalgam Mixer. But if speed is not so essential get the Caulk Mortar and Pestle. The length of the pestle and the shape of the mortar make the job a very easy and comfortable one. The Mortar fits the bottom of Alloy-Mercury Gage. Price complete, **$1.00**.

Up-to-date Information on OSOGENATION for Root-Canal Therapy



In New Booklet containing 84 Pages

May we send a copy to you?



New and Practical Information

IN a distinctly comprehensible manner this new authoritative book presents the up-to-date information on Osogenation. Within these 84 pages you will find suggestions and recommendations which will be of especial interest and invaluable service to you. ¶ The section entitled "Avoiding Difficulties" merits close study. All of the possible causes of difficulties encountered owing to operative errors are specifically explained with definite recommendations for their future prevention. ¶ The pulpectomy operation is described and illustrated on pages 37 to 41. You will probably be interested in learning how the Osogen method adequately provides for this part of the problem. Taken collectively, you should find the book quite interesting. May we send a copy to you?

Osogenation of A Complicated Molar

(*Continued from page 2*)

was then dressed with Eutone for five minutes, after which time the Eutone was removed and the canal filled with plastic Osogen. This root was filled and disposed of at the first sitting.

Then the other two canals were treated according to the technic for putrescent cases. Patient was dismissed for four days.

Radiogram 2, February 6, shows the mesio-buccal root filled and diagnostic points in the disto-buccal and the lingual roots. Tooth comfortable.

Radiogram 3, shows the root-canals filled. As stated before the mesio-buccal root contained a vital pulp. This pulp was removed at the dento-cemental junction and filled with plastic Osogen to this point using care not to cause pressure against the pulp stump.

The lingual root had a rarified area at the apex. Therefore, this root was filled to slight excess with plastic Osogen and the apex choked with a gutta-percha point.

The disto-buccal root, having no periapical area but being putrescent, was treated according to the regular putrescent technic. It was filled just to the apex but not beyond, avoiding disturbance of the periodontal membrane which was intact about the apex of the root.

Radiogram 4, shows the case immediately after filling, with the rubber dam and clamp removed. Note the excess plastic Osogen at the apex of the lingual root.

Radiogram 5, February 12, shows a partial absorption of the excess Osogen at the apex of the lingual root. Tooth comfortable.

Radiogram 6, February 17, eleven days from time of filling, shows the excess Osogen absorbed at the apex of the lingual root.

Radiogram 7, March 25, six weeks after filling. Tooth comfortable.

Radiogram 8, April 23, two months and a half from date of filling. Note repair at apex of lingual root.

Radiogram 9, May 15.

Radiogram 11, September 21. Tooth has remained comfortable and is functioning as an abutment for the bridge.

Radiogram 12, January 20, 1926. Note repair at apex of the lingual root. Also note normal condition about the apices of the two buccal roots.

Radiogram 13, March 24, 1926. Patient reports that tooth has been entirely comfortable since it was filled. The case shows satisfactory repair and illustrates three conditions in one tooth: vital pulp in mesio-buccal canal; putrescent pulp with rarified area on the lingual root; and a putrescent pulp but no periapical disturbance on the disto-buccal root.

The last radiogram which was made one year and a month from time of filling shows satisfactory progress.

What Does A Drug Store Clerk Know About Dentistry?

AND yet how frequently the dentist who is the reliable authority on oral topics will not specifically prescribe with genuine insistence the preparations which his patient must use at home.

It is generally agreed, however, among dentists that home treatment of the right kind is invaluable, especially so when the patient is undergoing professional treatment for so-called pyorrhea.

But when the dentist who actually understands the existing conditions in the case vaguely suggests the use of *some* tooth-paste and mouth lotion it remains only for the drug store clerk to recommend the brands to be purchased.

It is not conceivable that a dentist who has thought at all about the subject can possibly believe that all tooth-pastes and all mouth lotions are alike, either in their effect or lack of effect.

Hence, to further the genuine dentistry in which you are so vitally interested, may we suggest that you be specific in prescribing Mer Dentifrice and Mercitan Lotion. They have been originated and made for dentistry *first*. Consequently, they possess the clinical properties which are so necessary in your practice.

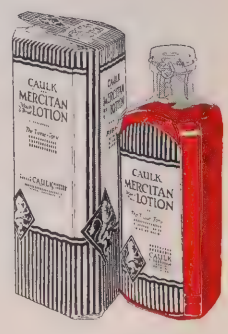
℞

MERCITAN LOTION (CAULK) 8 oz.

MER DENTIFRICE (") 3 Tubes

Sig. as directed

Richard F. Roe, D.D.S.



THE EIGHT OUNCE BOTTLE

when diluted with plain water makes a whole quart for use. *Retail Price,* One Dollar

THREE TUBES OF CAULK CLINIC TOOTH-PASTE

come in one package which retails for One Dollar

Printed in Canada, THE L. D. CAULK CO. OF CANADA, LIMITED, 172 John Street, Toronto

THE ARMAC PRESS LIMITED
TORONTO, CANADA

Between Sessions

A Symposium on the Pulpless Tooth

CANADIAN EDITION

MILFORD NEWS

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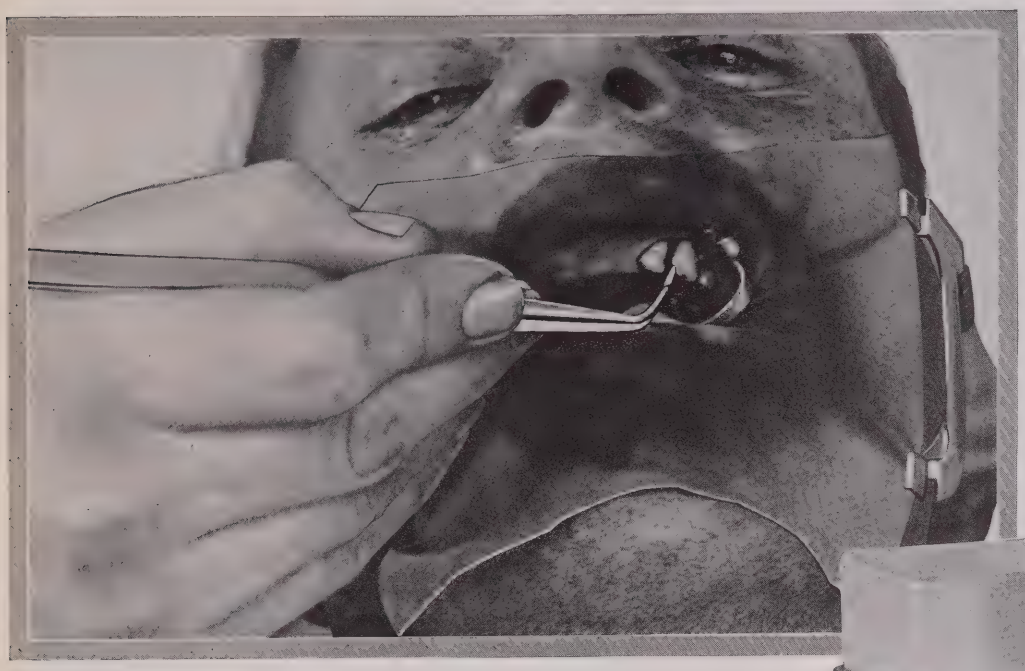
60
Dental Edition
73,000

Also in this Issue

Anatomy of Root-Canals ~ Mercirex Treatment of Epidemic Form of Herpes Facialis



Flood the Canal with Eutone and tease this Fluid into the canal with a J & J absorbent point. Allow the Eutone to remain five minutes.

"Tell Me Why I Have So Much Pain?"

"WHY do I have so much pain in using Osogenation?" asked one user. "I know that there must certainly be something wrong with my technic, for if all users were having the same difficulty you couldn't even give away the Osogen Outfits."

WE very carefully checked his procedure and discovered that among other omissions he was neglecting to apply Eutone.

This preparation contains eucalyptol, chloretone, menthol and thymol. In the original Osogen technique liquefied phenol was recommended to prevent after-pain. Experience showed that phenol could be replaced to marked advantage by Eutone (Caulk) which is not irritating, not escharotic, and exerts a more prolonged (mild) anaesthetic action than can be attained with phenol.

Eutone is neutral toward Osogen Fluid and plastic Osogen, which means that it does not react with Osogen Fluid and does not disintegrate plastic or set Osogen. Plastic Osogen sets perfectly in the Eutone.

Some essential oils (like oil of cloves), acids, and alcoholic preparations, are not permissible in Osogenation because they prevent the proper setting or hardening of Osogen. For that reason the use of all drugs of such nature should be avoided, excepting those specifically mentioned in the technique.

Eutone has reduced post-operative pain to a very small percentage of cases. When pain does occur after the use of Eutone, it is usually nothing more than tolerable and temporary soreness.

Eutone is recommended as a good precautionary measure in all cases. Sinus cases rarely give any trouble with after-pain, because of free drainage. In closed cases, especially, Eutone should always be used.

The operator can be quite sure that after-pain is most often the result of mechanical irritation from operative procedures, or inflammation already existing when treatment is begun.

Careful operating and the use of Eutone will avoid post-operative pain in nearly every case.

Eutone is Especially Valuable in the Following Cases:

1. Where there is a rarified area it is good practice to force a small amount of Eutone beyond the apex just before placing the plastic Osogen. This technique is especially effective in cases which are purposely filled to slight excess with Osogen.

2. Frequently in acute cases considerable pus flows on opening into the canal. These cases are usually associated with pain over a considerable area. Absorb exudate from upper portion of canal. Saturate loosely packed cotton with Eutone. Place in the cavity and dismiss the patient from one to two days. At the expiration of this period the tooth will generally be comfortable and you may proceed with the treatment.

3. In cases of marked pericementitis the tooth will be sore to percussion, and the surrounding tissue greatly inflamed. Seal in a dressing of Eutone. Allow it to remain from one to two days until the inflammation and soreness have subsided.

4. If a patient presents with an aching tooth which is partly putrescent, remove decay and clean out the putrefactive debris from the pulp chamber. Seal in a dressing of Eutone from one to two days.

Between Sessions

A Symposium on the Pulpless Tooth

THREE friends brought their trays and sat down at a table in the cafeteria of the Commercial Museum. Chance brought the three to the table at which I had parked for a noon-day bite. I recognized one of the three as one whom I had met at a previous meeting in New York and so was promptly introduced to the others. Amid the clatter and hubbub we ate and talked, or rather, I should say—talked and ate.

My friends had spent the morning in Auditorium F listening in on the pulpless tooth problem. With that same natural urge that makes a duck take to water, the conversation slid into a discussion of root-canal therapy. I soon discovered that the three friends had made the rounds much like myself, being absorbed in the question of what to do with the pulpless tooth. But, none of the three had engaged in any of the discussions at the sessions.

"I came to listen to the big boys who are supposed to know," said Fred.

"Me too," added Charley.

"The trouble is that the time is too short to get up and ask questions," interposed Burt. "Besides, if everybody wanted to blurt out their opinions the sessions would never end."

"That is true," I agreed. "Perhaps it is best that this is so because, after all, we go to learn from the other fellow."

"I feel that I got a lot out of the meeting even though I am temporarily at sea on the problem. Just knocked off my legs by a swell," said Burt. "The deuce of it is that one begins to see-saw on the whole thing because there seems to be a good deal of sound stuff on both sides."

"What do you think Charley?" asked Burt. "You have always stood by the guns on treating these cases."

"Well, I guess the old argument will go on, perhaps forever. As far as I am concerned, I see no reason to swerve from my present method of treating the pulpless teeth. We argue too much about typical failures and do not sufficiently emphasize the many routine cases that turn out successfully when properly handled. The job done well day by day becomes routine work and does not offer the spectacular stuff for papers. No surgeon would think of writing up his couple of hundred successful appendectomies. That's sort of expected. It's the unusual case, where complications occur, that provokes discussion or publication. But I will say that the wholesome effect of all this stuff is to teach us the need for greater care in deciding upon treatment and what's most important, it goads one on to more perfect operative technique," replied Charley.

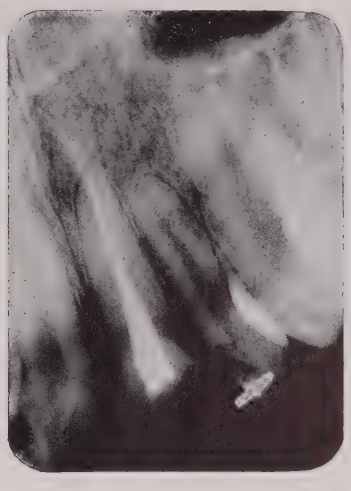
"Some of those cases of systemic disease traced to focal infection from the teeth, with the cures that followed extraction, convince me that I am on the right track even though I might be accused of being one-sided because I am an exodontist," broke in Fred.

"There you are, Fred. It's damn easy for you. You are in the safe position of the teetotaler. You can dismiss all argument on the question because you have a ground-hog case. You have put yourself in the position where you do not have to treat anything—abscessed teeth, pyorrhea or anything else. All you see in dentistry is forceps. All progress for you is unnecessary. Your case is settled. But not so for the rest of us who are compelled to treat teeth. And let me tell you that the public are waking up to the fact that false teeth in middle age are about as inexcusable as typhoid epidemics," said Charley with some warmth.

"Prophylaxis will take care of that Charley. When people learn how to take care of their teeth properly, eat the right foods, and live right, there will be no abscessed teeth or pyorrhea," replied Fred.

"There you go with that Utopian stuff which characterizes all you tooth-pullers.

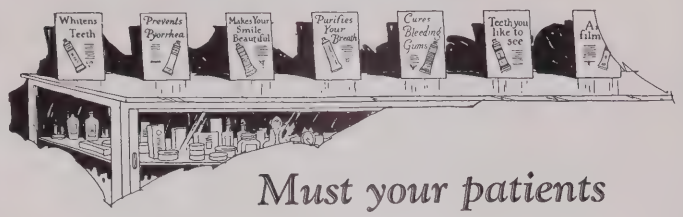
(*Continued on page 9*)



A DENTIST
in Massachusetts Reports His Experience With Synthetic Porcelain

"Now, I've tried all the porcelain fillings, but just give me de Trey's Synthetic Porcelain. I can get better matched fillings and they certainly give better results than any of the other porcelain filling materials.

"Enclosed you will find a radiogram of a superior left lateral, the incisal angle of which was restored with Synthetic Porcelain five years ago and it looks as good as ever today. The tooth is a vital one and by the way, I expect that filling to stand up five years more. I filled the root-canal of that left central and that has a large Synthetic Porcelain in it and the right central has two Synthetics in it. They are all good today and were inserted five years ago."



Must your patients

rely upon these popular but erroneous claims on counter cards in drug stores for advice in selecting tooth-pastes?

Or, Do You Give Them the Benefit of Your Professional Experience by a Specific Recommendation?

All tooth-pastes are not equally effective, equally safe, and equally worthy of your professional recommendation

THE patient halts a moment at the door, ponders and then asks, "Doctor, in your instructions to me did you mention the tooth-paste I am to use?"

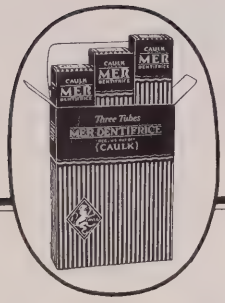
How frequently all the good impression made and the sound professional advice given are almost completely lost because the dentist fails to be specific in this one respect!

"Use any *good* paste" is a vague and unsatisfactory reply.

In the first place what does the patient understand by the term "good paste." He doesn't know the requirements generally. And if he did there would be no adequate way for him to prove that the tooth-paste he selected did or did not measure up.

This sort of an answer coming from the dentist who has just been most specific in his instructions for the correct oral prophylaxis argues against painstaking care by the patient.

Genuine insistence by the operator upon a thorough routine of mouth hygiene and then a specific prescription of Mer Dentifrice will go a long way toward gaining the full co-operation of the patient.



Twelve Good and Substantial Reasons for Recommending

MER DENTIFRICE

1. **Free from powerful, irritating drugs.**
2. **Contains *myrrh*, a mild, safe tonic for mucous membranes, tested by centuries of use and still approved by modern medical authorities.**
3. **No sugar, starch, glucose or other *fermentable* substances.**
4. **No grit. Polishing agent *non-crystalline* and one degree softer than dentin.**
5. **No *ready-made* soap. No soapy taste or harsh "bite."**
6. **A pure, bland form of soap is developed *in the paste itself* during manufacture.**
7. **No free alkali. No acid.**
8. **Prevents acid *fermentation* between the teeth.**
9. **Prevents alkaline *putrefaction* between the teeth.**
10. **Neutralizes mucin plaques.**
11. **Resists *solution* long enough to dissolve greasy deposits; *then* washes completely away, leaving no residue.**
12. **Not disgraced by any "cure-all" advertising or non-professional hokum. The true *professional* requirements are met in the paste itself and its directions for use.**

MER Dentifrice

"The Caulk Clinic Tooth-Paste"

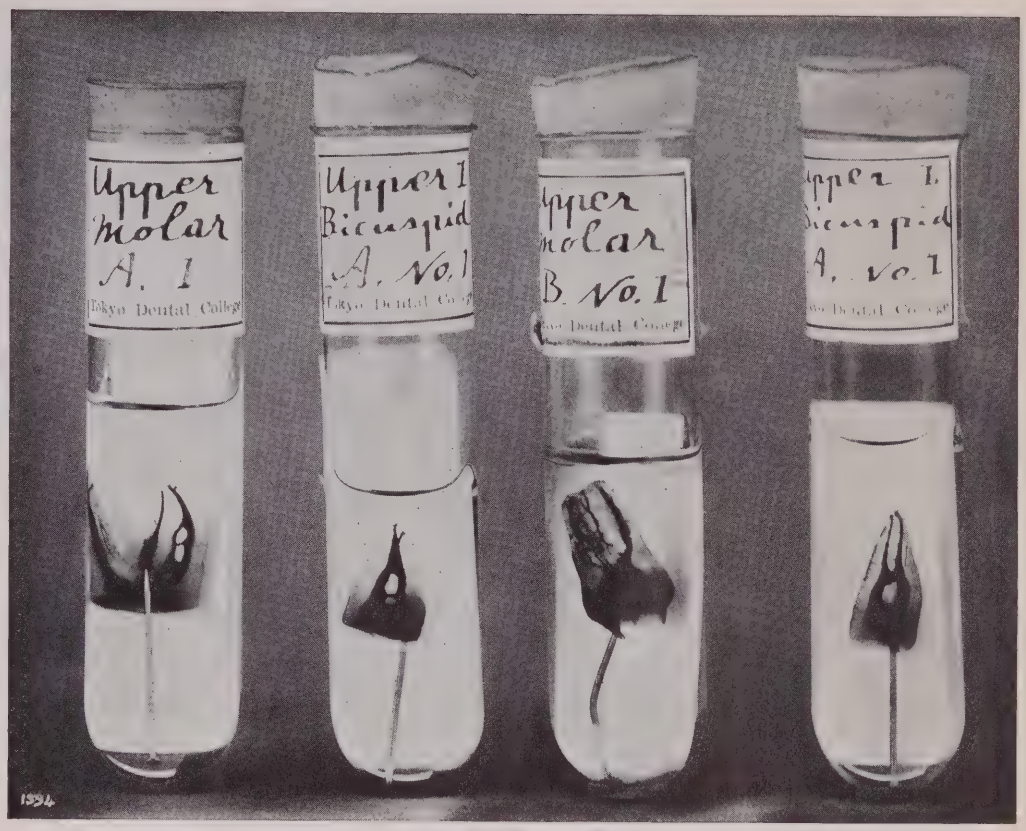
Can your neighborhood druggists fill your prescriptions for MER? If not, send us their names, and let us make all arrangements for stock in their stores without the least obligation to you

A PAPER of unusual merit was presented before Section 1 at the Meeting of the Seventh International Dental Congress. As is usual with papers presented at such a Mass Meeting, the time is so limited that the author is restricted to the bare outlines. We refer to the paper by T. Okumura, D.D.S., Igakuhakushi, who is dean of the Tokyo Dental College of Japan. Dr. Okumura, however, did not merely present a paper, but brought with him from Japan several hundred specimens selected from some three thousand teeth which he has prepared showing transparent specimens of teeth with the root-canals and all accessory branches depicted in detail.

During the past few years we have many times shown some remarkable pictures of the multiple foramina in teeth. These were all photomicrographs, practically all confined to the apical third of the root. But here is an investigator who has given us macroscopic evidence of not only multiple foramina, but shows us all of the canals and branches in thousands of teeth. There before our eyes is the tooth itself, clear like amber, with all of these canals and branches standing out in bold relief, jet black. The form and shape of the tooth is just as natural as when freshly extracted.

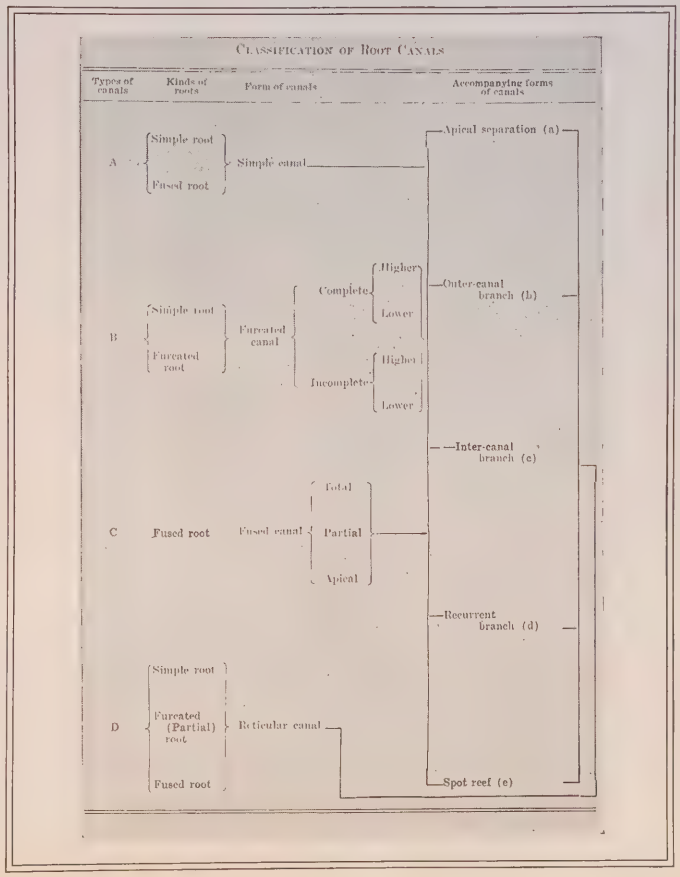
For resourcefulness, Dr. Okumura is unique. He had prepared thousands of specimens when the earthquake destroyed his labor of years. In the short period since this cataclysm, he has prepared thousands more of these specimens. That alone would excite admiration. But on top of all this, he has studied each of these specimens and gives us a classification which is reminiscent of our mineralogical system.

It was our good fortune to meet Dr. Okumura in the laboratories at Milford. With simple modesty he was ever eager to talk of his work and exhibit his specimens. So we enticed him to loan us four of his valuable specimens in order to reproduce them pictorially in the Milford News. We also print Dr. Okumura's classification. At this time we cannot print his detailed study of all of the teeth.



This photograph furnishes macroscopic evidence of not only multiple foramina, but also shows all of the canals and branches

Anatomy of Root-Canals



The great importance of this study in connection with root-canal work is apparent. How futile to clean out the main canals, asceptically if you please, and fill such canals with inert material? Mechanical or chemical cleansing will not reach all these ramifications. Is it not evident that chemical sterilization must supplement our cleansing processes? And, is it not evident that diffusible germicides must be employed, or, at least, some method which will provide adequate penetrability? Lastly, does this not indicate the need for filling materials having germicidal properties?

Every dentist doing root-canal work, indeed every student, would profit much from a study of Dr. Okumura's work. Such a study would equip the individual with a thorough knowledge of root-canal anatomy and enable him to carry out operative procedures scientifically instead of haphazardly.

We will be glad to send any dentist, teacher, or student, Dr. Okumura's method for making these transparent specimens.

Start Right

with a Clean Plate Glass Slab and a Polished Stellite Spatula to Make Synthetic Porcelain Restorations Permanent

Here is a Test that you may try if you care to

Take three disks of set Synthetic Porcelain. Then take a genuine Stellite instrument and two other so-called "imitations." Scrape the surface of each disk with each of the instruments. Notice that the instrument in the center which is Stellite cuts but does not leave a black mark. The other two leave black marks showing that the metal is cut by Synthetic Porcelain.

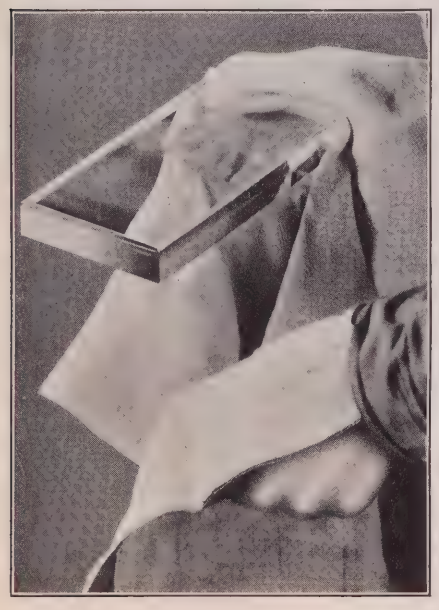
Almost Every Dentist

appreciates that cleanliness throughout the entire operation in using Synthetic Porcelain is the first requisite for the performance of good work. And yet how frequently proper attention is not given to the condition of the slab and spatula.

A dirty, greasy slab can positively spoil an otherwise perfect restoration. A spatula that is softer than agate or Stellite is bound to be ground off in the mix and discoloration will be the result.

The Test for Correct Consistency of Synthetic Porcelain

The mix will lift and then break short when the spatula is lifted a quarter of an inch.

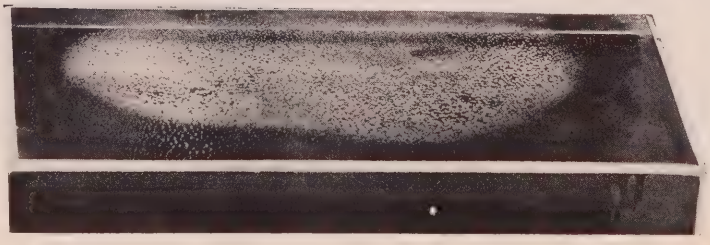


Don't Use a Wet Slab

After washing or cooling the slab in water take care not to chill it below the dew-point so that moisture will not condense on its surface. Apply alcohol to the surface of the slab to remove any grease, dust, etc. which may be remaining.

Consequently

do your mixing only with agate or Stellite. Spatulas that are merely "stainless" will not do. You may depend upon a genuine Stellite Spatula, however, because this is the only metal so far discovered that is harder than Synthetic Porcelain.



Under No Circumstances

should Synthetic Porcelain be mixed on a moist slab.

Reserve a No. 2 Stellite Spatula and a heavy plate-glass slab solely for mixing Synthetic Porcelain.

Typical Cases Illustrating What The Pyorrhea Missionary Meant by Advising—*"Treat Pyorrhea In Its Incipiency"*

Case 276

ACUTE GINGIVITIS

THE following case is recorded to show that acute gingivitis, or, should we not say, incipient pyorrhea, may be brought to a successful conclusion in a few treatments. In this instance only two treatments were required. Many patients are found to have a similar incipient stage of pyorrhea when they present for general dental work. Early treatment not only

(*Continued on page 10*)

Case 212

PATIENT presented on June 14, with gums badly swollen on all the buccal surfaces. Inflammation extended into each proximal space, but did not involve the lingual surfaces excepting on the four lower anteriors. First photograph taken and patient started on home treatment with Mercitan Lotion and Mer Dentifrice. Scaling and medication were not attempted at this sitting.

June 28. Strong Mercitan Fluid applied to the gingival pockets about all teeth on the labial and buccal surfaces.

July 5. Strong Fluid again applied to all labial and lingual pockets.

July 18. Treatment with Strong Fluid repeated in all pockets and on buccal and labial surfaces.

July 26. Strong Cream applied under the free margins of the gums by means of the Stellite applicators. All pockets eliminated.

August 2. Examination only. Treatment not needed. The gums had become very hard and firm. At no point did the gum tissue show that it was detached from the cementum. The only indication that pyorrhea ever existed was in two or three V-shaped scars and the blunting of the crest of the gum septa between the teeth. The indications are that these septa will again approach the contact points.

ANYONE at all interested in the successful and prompt treatment of pyorrhea will agree that whenever possible the condition should be checked in its incipiency. Prolonged delay waiting for advanced conditions to develop is never advisable under any circumstances.

If a slight gingivitis is observed by the dentist in the mouth of the patient while he is making a restoration or doing some other kind of dental work he should inform the patient of the seriousness of allowing the condition to go untreated.

The "pyorrhea missionary" in the July MILFORD NEWS gave a somewhat elaborate discourse on this very subject. If you do not recall the exact statements which he made to his patient may we suggest that you give the article a second, thorough reading.

On this page are presented typical cases of gingivitis that were successfully treated in three and four treatments respectively with Mercitan.

Even though you may not care to treat the later stages of pyorrhea, yet you would quickly discover in Mercitan Treatment an invaluable aid for the prompt checking of incipient pyorrhea and the restoring of the tissues to health.

Mercirex Treatment of Epidemic Form of Herpes Facialis

Photograph at left shows the condition before treatment

Photograph below shows the boy in normal condition on the tenth day after beginning treatment

The patient, a boy aged 8 years was brought to the clinic on August 9, 1926 suffering with facial herpes. There were very pronounced lesions involving the left commissure of the lips, the upper lip, the septum of the nose and the lids of the right eye. There were also several lesions varying in size from ½ to 2½ centimeters in diameter on the back of the neck, as well as one large area 2½ by 3½ centimeters over the left shoulder.

The affection made its appearance two days previously beginning with an area on the chin which the boy had injured the same day by falling. Other lesions soon formed at the other points on the face and neck.

At the time of the examination most of the lesions were covered by rough brownish crusts. Here and there on the lips and cheek were small patches of freshly formed vesicles, the contents

(*Continued on page 10*)

Between Sessions

(*Continued from page 3*)

Do you realize what a small percentage of the people visit a dental office except when pain brings them there and it is too late for the prophylaxis and diet argument? Now, I agree with all that stuff as far as it can be practically applied. We must minister to the needs of our patients as we find them, not as we would like to have them. I can no more subscribe to the pulling of all pulpless teeth than I can to the exterminating of the human race to rid it of disease and pestilence," said Charley.

"I guess Charley is right, Fred," said Burt. "His game is the hardest. I don't succeed in every case where I attempt treatment of a pulpless tooth any more than you remove infection every time you pull a tooth. But when I see the results of treatment of my cases, I begin to question some of these hundred percenters who tell us that all treated pulpless teeth are infected."

"Sometime ago I read a story in one of the magazines which told of a man who dropped dead because he *thought* he drank poison. Literally scared to death. There are men in the profession, and some of the bacteriologists perhaps, who are literally scared to death when they encounter streptococci. They feel relieved when they pull a tooth because they *think* that always removes infection. Does it? Emphatically no, as we are all aware. Even when a tooth is surgically removed, and the socket curetted, I am sure we cannot remove all infection. We depend on nature to do its part. The big point is not whether we get a culture to grow but whether the tooth is infected. By infected I mean to the degree that the tooth is actually a menace to health. Cultures alone are too unreliable for forming an opinion about that," said Charley, rising from the table.

We filed out chattering all the way and sat down in wicker chairs around the band to listen to some music before the afternoon sessions began. But little music did we pay attention to. Amid the din, the discussion proceeded so that I remained oblivious to all other doings during the recess for lunch.

"Lookee What My Dentist Gave Me for Christmas!"

DESPITE your best efforts to the contrary very likely most of your little patients associate you in their minds only with pain and disagreeable things. ¶What a different attitude they would have towards you if you should happen to remember them at Christmas with some little gift. ¶You may be puzzled though to know what to give. Surely it ought to be something related to dentistry. Neckties or handkerchiefs do not fit in well. ¶Why not give a regular size bottle of Mercitan Lotion and a large tube of Mer Dentifrice? They are already packed in a plain white box with an appropriate wrapping paper. And the card attached reads "With Christmas Greetings", leaving you plenty of space for your signature. ¶Your little patients would be proud to display this package along with their other gifts under the Christmas Tree, so that all of their friends and relatives might see it.

As a Suggestion, a convenient plan for you to handle the matter would be to either phone or write your dealer to send the packages direct to your patients. He has these packages in stock and would be pleased to serve you in this way. Just give him the list of names and addresses.

The price of one dozen packages is $12.00. Of course should you adopt the plan suggested a few cents extra will be required by your dealer for postage.

What would be the effect of say thirty-six packages distributed among your little patients? Isn't it reasonable to believe that you would be furthering the better kind of dentistry in which you are so vitally interested?

"I have the notion that out of all the groping in the dark something good will come. Some method which will do away with all uncertainty in treating pulpless teeth. Just now it seems that a feeling of uneasiness prevails among those speakers who have a reputation as specialists in root-canal therapy. This is disconcerting to those of us who have felt that we have been doing good root-canal work," said Burt.

"There will never be a method like that. The trouble is that too many are chasing rainbows instead of getting down to hard work. Instead of spending a little time studying the anatomy of root-canals, which is fundamental, there is a tendency always to become lop-sided. Now it is streptococci and focal infection, another time it is ionization, then it is denuded cementum, and so on through the gamut of technicalities. Modesty prevails among those whom we heard talk which is often mistaken for weakness. All these men have a message to deliver to those of us who are prepared to follow their line of thought. I think you will agree that everyone of these men can do successful work even though their methods differ. To me that proves that root-canal work is feasible because even spectacular results may be obtained in a variety of ways. All the argument is around that important question as to which is the most practicable method for the man of average ability," said Charley.

"That's the rub, Charley," said Fred. "The average man does not know what to do and so tries this thing and then that. When we see the side of the root perforated, single gutta-percha points stuck into wide open canals, hunks of gutta-percha beyond the root, you can't blame us for insisting that pulpless teeth should be extracted."

"Well, that's no criterion. How about the many pulpless teeth that are in fine shape years after treatment? For that matter, how many fillings, inlays, and bridges pass muster? You cannot judge fairly by accepting one-sided evidence," said Burt.

"My notion is that we are beginning now to take stock of ourselves. For years, pioneers

(*Continued on next page*)

have blazed the trail for us, but we move slowly. There will always be defective work I suppose. Medical men have the same thing to contend with. And even the best of us will fail at times, just as the greatest medical men slip-up occasionally. For that reason, I say that you have no right to condemn a practice which has been reasonably successful just because you can pick out certain bungled specimens. If we must diagnose each case and observe results, so, I think, should you be prepared to consider the reason for failure in individual cases," said Charley, looking at his watch.

"The session will be late this afternoon. Some of the speakers are attending a dinner in town," I remarked.

"We have five minutes before opening time,"replied Charley.

"Charley, what would you say to a physician who insisted that he was convinced dead teeth should be extracted?" asked Burt.

"Whew! What wouldn't I say! In the first place, I would ask him what he meant by a dead tooth. That probably would end the argument. If not, I would ask him whether all infected legs, arms, or heads, should be amputated. Of course he would ask me at once to become serious. To which I would reply that my question was just as sensible as his statement because whether I would treat or extract depended upon the condition of the individual tooth. I believe that would convince him that he could entrust his patients to my care."

"I sometimes wish I had your confident way of handling people, Charley," said Burt rather sheepishly.

"Look here Burt. You know well enough that I have spent many years at this game and I think I follow the subject closely by reading everything of importance on the subject besides coming to most of the meetings. And I cannot close my eyes to the many happy results following treatment of pulpless teeth by myself and others. Why should I allow my equilibrium to be disturbed just because there is argument?" replied Charley.

"I guess you're right Charley. Experience in the game is what counts. To know what to believe, I suppose, as well as to know how to do things," said Burt, rising.

So I followed this interesting group into the auditorium, thinking all the time how far reaching were the results of a meeting like the Seventh International Dental Congress. What thoughts and questionings it awakens! What renewed hope and confidence! What benefits to mankind!

Mercitan Case No. 276

(*Continued from page 7*)

results in a quick response, but the patient is guarded against an aggravated form of pyorrhea by timely instruction in mouth hygiene. This is perhaps the most satisfactory type of case for the practitioner to undertake.

Age — 36, Height — 5′4″, Weight — 132, Occupation — Housewife.

Acute gingivitis, very offensive breath, gums bleed readily upon slight friction. Both lower centrals show slight mobility. Original condition shown in first photograph. The teeth were thoroughly scaled to remove salivary and serumal calculus and then polished. All pockets treated with mild Mercitan Fluid. Then dismissed patient for five days with instructions to carry out the following home treatment:

"Apply Mer Dentifrice with the tip of the finger, or rubber finger brush. Rub the paste on and between the teeth until all spaces between the teeth are filled. Then massage the gums gently and thoroughly going over all surfaces, inner and outer, of both upper and lower jaw.

"After massaging the gums, brush the teeth thoroughly. Allow the bristles to spread out in between the teeth. Continue brushing until all paste has been removed from the spaces in between the teeth. Next, complete the interproximal cleaning by passing dental floss between all teeth.

"Finally, place some Mercitan Lotion, full strength, in the mouth, close the lips over the bare finger tips, and (rather gently this time) massage the gums over the roots of all teeth."

The patient returned five days later showing considerable improvement. Breath not so offensive and congestion of the gums much less. Treated gums around lower centrals with Mild Mercitan Fluid and the remainder of the mouth with Mild Mercitan Cream. Dismissed patient for another five day interval.

Last photograph taken five days later. All pockets eliminated. Gums have returned to normal color and firmness and no longer bleed even while patient is vigorously brushing her teeth. Compare the even gingival line around the lower anteriors as shown in this photograph, with original irregular outline shown in the first photograph.

Mercirex Treatment of Epidemic Form of Herpes Facialis

(*Continued from page 8*)

of most of which were quite turbid.

The lids of the right eye were considerably swollen and the lashes glued together with exudate from the herpetic lesions and the inflamed conjunctiva. The latter was reddened and showed other evidence of marked irritation.

Photograph No. 1 taken at this time shows the condition before treatment.

In the same family there were three other children varying in age from 2 to 6 years all of whom developed similar lesions principally on the face. Other children living in the neighborhood were also observed to be suffering from this type of herpes.

The contents of some of the freshly formed vesicles was cultured and a virulent staphylococcus recovered which was capable of producing vesiculopustular lesions in the skin of rabbits.

The treatment consisted of washing the face and neck with Mercirex soap and warm water to soften and remove the encrusted serum. This washing was done thoroughly but as gently as possible so as not to cause irritation. The head was also bathed with hot water and Mercirex soap to prevent the spread of infection.

After carefully removing the exudate from the eye lashes, the inflamed eye was treated by instilling tepid boric acid solution into the conjunctival sac Mercirex cream was then applied over the eyelids and to all the skin lesions and for some distance over the adjacent healthy skin.

The parents were instructed to carry out similar treatment at home once daily. A dose of castor oil was given on the first day.

The treatment was continued in this manner at home and five treatments were given at the Caulk Clinic. The second photograph shows the boy in normal condition on the tenth day after beginning treatment.

Two weeks later the child's condition was normal. All the other children under our observation who had been treated at home recovered in about the same time as the case here illustrated. There has been no recurrence of the affection in any of the patients after five weeks.

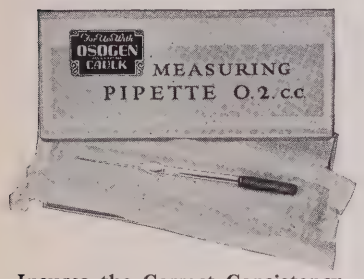
The prompt results and the prevention of extension of the infection in this case, are due primarily to complete and thorough removal of all crusts and scabs by prolonged soaking in warm water and gentle rubbing with Mercirex soap. The Mercirex cream then quickly penetrates into the infected layers of skin underneath. Warm boric acid solution used to wash out the eye followed by application of Mercirex cream to the eyelids is shown to be a good routine treatment for skin affections around the eye.

The Indispensables of the Osogen Outfit

Eutone for Osogenation

THE principal purpose of Eutone is to aid in preventing post-operative pain caused by instrumentation in the pulp-canal. It has no reaction with Osogen Fluid, does not interfere with the setting of plastic Osogen, and is a most valuable item for the operator.

Price 60 cents.



Insures the Correct Consistency of Osogen

THIS Pipette is especially marked to measure the correct quantity of Osogen Fluid for each mix.

The Powder in each vial has been carefully weighed so that when combined with exactly two-tenths c.c. of Fluid the resulting mix will be exactly of the right consistency.

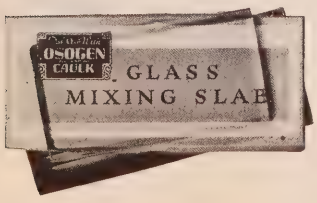
Price 50 cents.

Keeps the Mix Covered and Protected

THIS inexpensive accessory serves the important purpose of keeping the plastic Osogen protected from dust and to prevent too rapid setting.

The second basin in the Tray provides a clean covered receptacle for Osogen Fluid during the preliminary sterilization of the canal.

Price 75 cents.



The 48 Vials and What They Contain

OSOGEN is the only material ever originated having certain unique properties which meet all of the requirements for the scientific management of putrescent and pulpless teeth, in a new method, easy and safe in operation and certain in results.

In the package illustrated above there are 48 vials, 24 vials of Fluid and 24 vials of Powder. Each Fluid vial contains one cubic centimeter. Each Powder vial contains four-tenths of a gram. This method of packaging insures the correct consistency and working properties in every mix.

Separate packages containing all Powders or all Fluids are also ready for quick delivery.

Price per package $5.50

Reserve Solely for Osogen

THIS glass mixing Slab is recommended to be kept apart and used exclusively for Osogen—and for no other purpose. No other dental operation requires greater cleanliness than Osogenation. This slab has been particularly designed for Osogen and is much smaller than others.

Price 45 cents.

Ordinary Pluggers Will Not Do

THE metal in the Freepas Non-Corrodible Pulp-Canal Pluggers is a private alloy made especially for use in contact with plastic Osogen. Hence there is no corrosive chemical action on the pluggers when packing plastic Osogen into the canals. Long mounted only, in three sizes. Five Pluggers to the box at

$1.00 or 20 cents each.

For Your Convenience

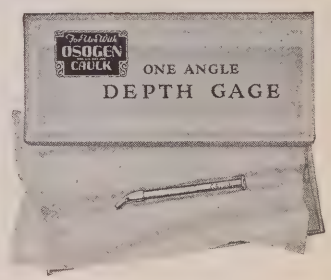
A BOTTLE of Ammonium Hydroxide is included in the Osogen Outfit for your convenience. It has two important uses: (1) To alkalize hydrogen peroxide, and (2) To decolorize dentin if stained by residual peroxide in contact with Osogen Fluid.

Price 40 cents.

Nickel or Steel Spatulas Can Not Be Used

THIS convenient small size genuine Stellite Spatula is recommended for exclusive use with Osogen so that there will be no chance of causing a change of color in the mix.

Price $2.00.



Controls the Depth of Instrumentation

THE Caulk Depth Guard is of a new and simple construction, having no moving parts, threads or screws. Hence it requires no mechanical adjustment except insertion of the instrument to the required position. Also made in a straight style.

Price $1.50.

Those who use Mercitan Lotion and Mer Dentifrice see results that mean, "My dentist knows what he is talking about."

Through Every Land and Clime

wherever modern dentistry is practiced keen interest is being particularly centered right at this time upon thorough mouth prophylaxis.

To be carried on effectively it is vitally essential that a dentifrice and mouth lotion be used by the patient that possess the *right* kind of properties.

Mer Dentifrice used daily with the correct brushing of the teeth and vigorous massaging of the gums in conjunction with Mercitan Lotion provides for a safe, effective and delicately pleasant mouth prophylaxis.

This combination prevents tooth decay and the accumulation of salivary and serumal tartar which are among the most prominent causes of so-called pyorrhea.

"HERE ARE TWO PREPARATIONS MADE FOR DENTISTRY *FIRST*."

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Again, Anatomy of Root-Canals

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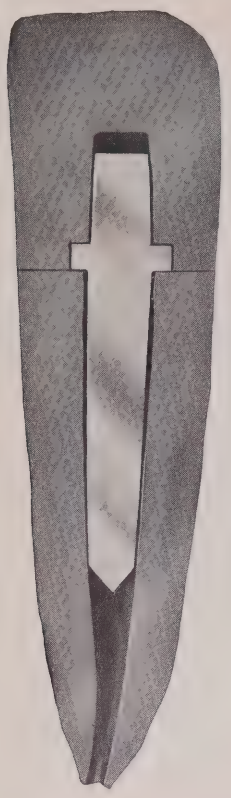
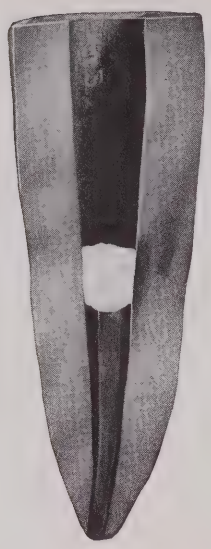
Also in this Issue

The Dental Assistant and Her Duties

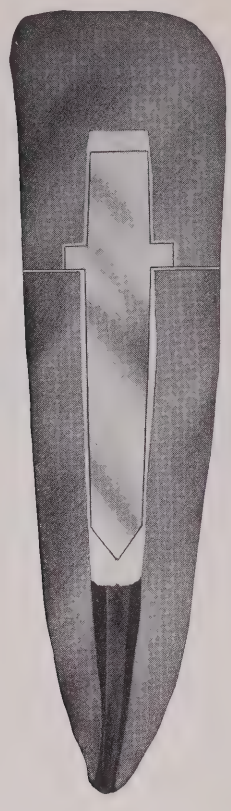
When *Thymozin* Fails To Set Properly



1403-C



1403-A



1403-E

1403-C illustrates fitting the metal pin into the canal.

1403-A shows the important step of placing temporary stopping over the gutta-percha point embedded in Osogen.

1403-E presents the finished operation. Notice how the temporary stopping prevents contact between the metal pin and Osogen.

Technic For Placing A Pin Crown After Filling The Root-Canal With Osogen

Outside circumstances often compel the dentist to place a pin crown at the same sitting that the pulp-canal is filled with Osogen. It is a better plan, however, when it can be conveniently arranged to postpone placing the crown until another day.

This procedure allows the Osogen in the pulp-canal to set. Then at the next visit it is only necessary to drill out the excess Osogen and fit the pin into position. By following this technic there is no need to consider the possibility of discoloration, for set Osogen will have no action whatever upon the metal pin.

When it is necessary, though, to place the pin crown immediately after filling the canal certain precautions should be taken. The following outline provides for the complete procedure of filling the canal with Osogen and placing the pin crown.

The first step is illustrated in photograph 1403-C. The pin is fitted into the pulp-canal and then removed to be ready for placing later.

The apical half of the canal is now filled with plastic Osogen. If you find that the canal at the apex is wide, or if there is excessive seepage, choke the foramen with a gutta-percha point. This point will be embedded in the Osogen as illustrated in photograph 1403-A.

Is the X-Ray Indispensable In Using Osogen?

The *action* of Osogen does not depend upon the X-Ray, but does depend upon proper *placement* in the canal. Without any question whatever, this proper placement will be made with much greater confidence and surety with the aid of the X-Ray. If X-Ray pictures are not available, Osogen can still be used with full effectiveness *providing the case is properly managed.* But the value of the radiographic picture can hardly be overstated as an aid in diagnosis, in prompt and confident management of many different kinds of cases, in protecting patients against operative errors or deficiencies, and in making permanent records of conditions and progress.

Then dam off the remainder of the canal by placing a small lump of temporary stopping over the plastic Osogen. The stopping will prevent the metal pin from coming in contact with the plastic Osogen. This precaution is quite necessary.

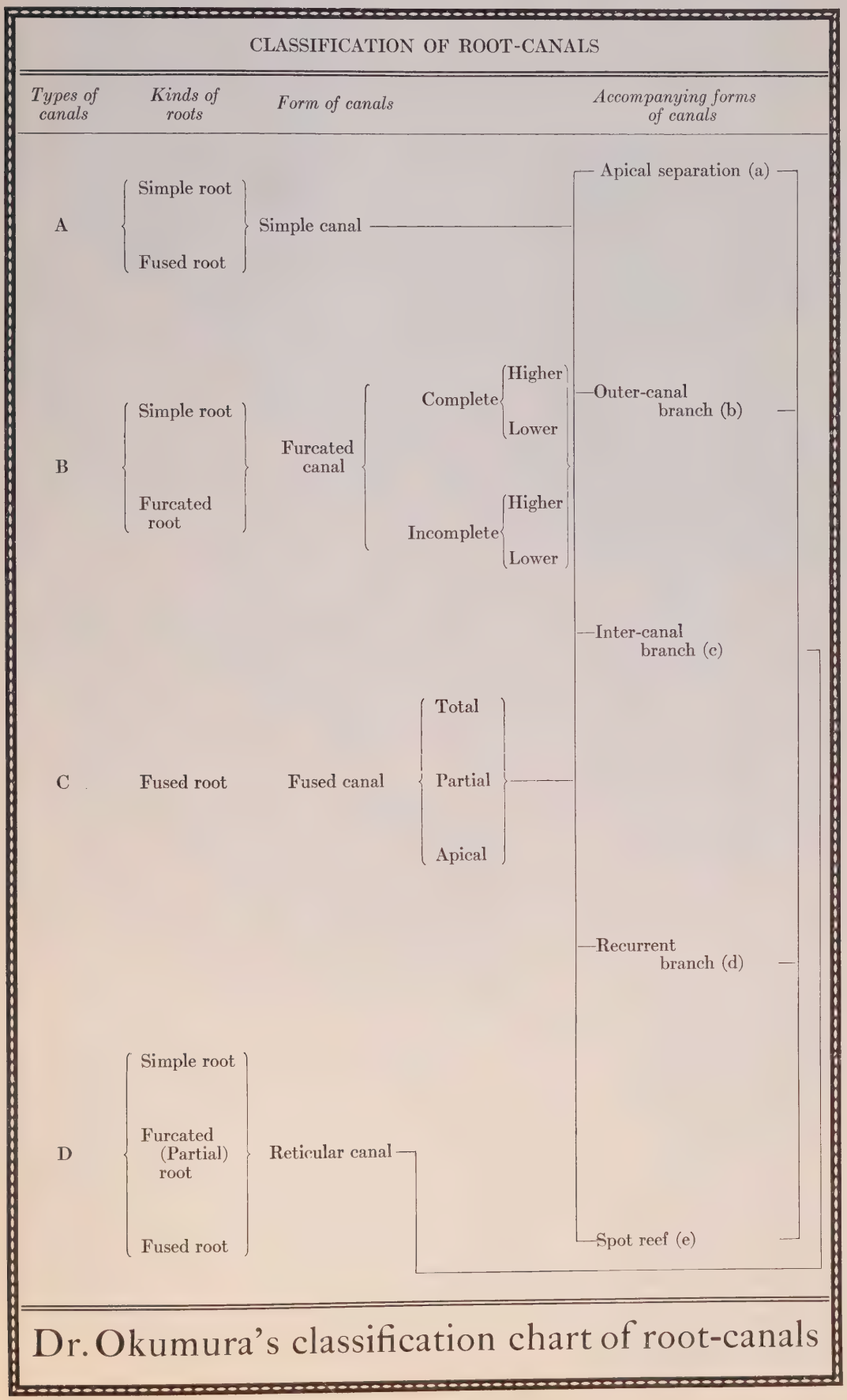
The open part of the canal should now be washed out with ammonia water U.S.P. Should there happen to be any excess plastic Osogen smeared on the walls of the canal the ammonia water will remove it and thereby prevent a possible discoloration when the metal pin is placed. Dry the canal.

The canal is now ready for the pin-crown to be cemented into position.

This method of employing temporary stopping as an obstruction prevents the plastic Osogen from being extruded by the pressure necessary for cementing the pin. Therefore, the Osogen can not coat the walls of the coronal half of the canal to prevent the proper adhesion of the cement.

Photograph 1403-E shows the pin, cement, gutta-percha and Osogen in position.

Again, Anatomy of Root-Canals



Dr. Okumura's classification chart of root-canals

THE pulpless tooth has been charged with many crimes and often declared to be a dead tooth. With uncanny recuperative power it seems to blossom forth time and again with vigorous protest against those who have tried to pronounce its death sentence. Those who still cling to the "pulpless tooth—dead tooth" superstition must realize at least that the *problem* of the pulpless tooth is very much alive.

In the last issue of the Milford News we printed a brief report of the work of Dr. Okumura of the Tokyo Dental College of Japan on the anatomy of root canals. We did not give the method used by Dr. Okumura for preparing transparent specimens of teeth but offered to supply those interested with the necessary details. We did not expect more than a few requests for this information. But up to this time hundreds of letters have arrived from all over the country and they keep coming every day. Such lively interest in the pulpless tooth problem demands publication of Dr. Okumura's method.

The hundreds who have applied for the information in order to prepare specimens, many of them teachers and investigators, will broadcast the knowledge of root-canal anatomy which Dr. Okumura has made available to all by his patient and clever work. It is fundamental to the scientific treatment of the pulpless tooth.

Dr. Okumura's Method of Making the Transparent Specimens

The steps in preparation now in use in his laboratory are as follows:

1. The original form of the crown is preserved by means of a plaster cast and photograph.
2. Expose the pulp cavity by grinding down a portion of the crown.
3. Immerse the tooth in an antiformin solution for 6 to 8 hours in order to remove remnants of pulp tissue and other organic substances.
4. Wash the tooth in running water for 24 to 48 hours to remove the antiformin.

(*Continued on page 7*)

There's a SYNTHETIC PORCELAIN PACKAGE

Packed and Ready

FOR THE INDIVIDUAL PREFERENCE OF EACH DENTIST

NARROW MODEL SYNTHETIC CABINET

THIS improved cabinet is less than a foot long and but five inches deep. It fits the compact modern office, keeps the Synthetic Porcelain equipment intact. It contains:

Eight full portion shades of powder adequate to match seventy-five per cent of the shades on a Twentieth Century Shade Chart
Shade Guide — Plate Glass Slab — Celluloid Strips
Cocoa Butter — Crown Forms — Genuine Stellite Spatula
Two full portion bottles of liquid Repelac for lining cavities, and a groove for placing instruments.

The contents of the cabinet are sold at quantity rates. **Price,** $35.50.

THREE SHADE PACKAGE

THE three powders and two liquids contained in this Three Shade Package of Synthetic Porcelain are now individually packed in separate cartons. Hence it is much more convenient to obtain *sealed* packages containing only those shades that you prefer. The regular assortment includes shades 3, 6 and 15. **Price,** $11.25.

SINGLE SHADE PACKAGE

THERE is only one Synthetic Porcelain. Consequently silicate cements and enamels can not make Synthetic Porcelain Restorations.

Here is the single shade package containing one full portion bottle of powder and one full portion bottle of liquid. **Price,** $4.50.

TWELVE-FOUR PACKAGE

HERE is the new 12-4 package of Synthetic Porcelain. It contains twelve full portion bottles of powder and four full portion bottles of liquid at $39.50 per package.

The old style package of Synthetic Porcelain contained double portion bottles of liquid. The smaller bottles in this new package are generally more convenient for dentists.

Then too there are twelve bottles of powder instead of only ten in the old style package.

The regular shades of powder are: White, Light, Light Yellow (two bottles), Light Gray, Bluish Light Gray, Dark Gray, and Special Blend.

But your dealer (from stock, without a moment's delay) can supply this new package with any other assortment you may prefer.

When purchasing the 12-4 package also ask for the Caulk Shade Chart. It is an invaluable aid in perfectly matching tooth structure with Synthetic Porcelain.

The Dental Assistant and Her Duties

It is with a great deal of pleasure that we publish herewith the account of the demonstration clinics by the American Dental Assistants Association, held in Philadelphia on August 20, 1926.

The service of the trained assistant to dentistry is invaluable. There is no end to her duties. And if she appreciates to the fullest extent just how important and diversified her work really is then the dentist will be gratified to find that the mass of detail necessary to the functioning of a dental office will no longer bother him.

Notice in the following account the wide range of service which the assistant can bring to a dental office. Unless you have an assistant in your own office you will probably be greatly surprised with the variety of duties which may be most profitably transferred to her decidedly capable hands.

The special attention of dentists as well as dental assistants should be called to the new book, The Dental Assistant, by Emma J. McCaw, R.N., and published by Mosby of St. Louis. As the author states in the preface, "This book tends to be useful in the most practical way to the young woman assistant who is anxious to render efficient aid to the dentist with whom she is associated and who has at heart the welfare of her patients. It also hopes to relieve, in some small way, the strain placed upon those doctors whose duty it is to teach the new assistant."

Milford News is pleased to endorse this book and to recommend it not only to dental assistants but to dentists as well.

Following herewith is the account of the demonstration clinics for dental assistants:

1. Sterilization assistance. Cincinnati Dental Assistants Association. Ohio.

Steam sterilization for cotton rolls and dressings.

Rules for sterilization by boiling.

Hand piece sterilization, right angles etc.

Sterilizing rubber dam holders.

Care of dentures while patient is in chair.

Sterilization of carpule syringes and needles.

Quick sterilization . . . Instruments which cannot be boiled, diagnostic lamps, etc.

Methods of brightening and polishing instruments.

Sterilization of saliva ejectors, metal, glass, rubber and paper.

Sterilization of burs, boiling and solutions, cleaning, etc.

Sterilizing hand brushes.

Sterilizing solutions.

Sterilizing mouth props, (for gas extractions).

Sanitary powder puffs—made by assistant.

Demonstrators { Eleanore Leeker, Altha Gubser, Henrietta Buck

2. Radiographic Assistance. Cleveland Dental Assistants Association. Ohio.

Preparation and care of solutions.

Developing and mounting of radiographs.

Filing and records.

Mounts, holders, different types of films, printed photos.

Pictures without use of intensifying screen.

Miniature developing tank, etc.

Demonstrator—Elma Moore Eggers

3. Laboratory Assistance. Chicago and Cook Co., Dental Assistants Association. Illinois.

Pouring of casts in stone and plaster; boiling; model carving, setting up teeth; staining of teeth, gold casting in all its branches, etc.

Demonstrators { Mildred Graham, Ruth Rogers, Angie Ryan

4. Prosthetic Assistance. Dental Assistants and Secretaries Association. Maryland.

Various steps from model pouring to finished plate waxing, boxing, investing, vulcanizing, polishing and finishing.

Demonstrator—Kathrine Marris

5. Group Clinic. Educational and Efficiency Society for Dental Assistants, 1st District. New York.

1. Chair Assistance and Accessories.

Care of patient; preparation for operative procedure; first aid; preparation for anesthesia, local and general.

Mixing of cements, alloys, Synthetic Porcelain, etc.

Preparation of impression materials, making of surgical supplies; making of accessories such as instrument wraps, bibs, aprons, headrest covers in rubber, linen, paper, etc., care of rubber gloves, etc.

Columns could be used for description of this well appointed table demonstration.

Demonstrator—Martha Keit

2. Secretarial Assistance.

Miscellaneous slips, telephone, laboratory, paid out, appointment, etc.

Income tax data.

Suggestions on check writing, the right and wrong way.

Collection letters.

(*Continued on page 9*)

(At left)

Warm any small ball-pointed instrument in a flame. Then dip the instrument in Thymozin 1, and immediately spread in the cavity.

(At right)

Warm instrument again. Pick up one or two granules of Thymozin 2 and spread gently over Thymozin 1 in the cavity.

When *Thymozin* Fails To Set Properly

The prompt setting of Thymozin generally hinges upon one particular factor: don't place too much of No. 1—the yellow crystalline preparation. Just a little is sufficient.

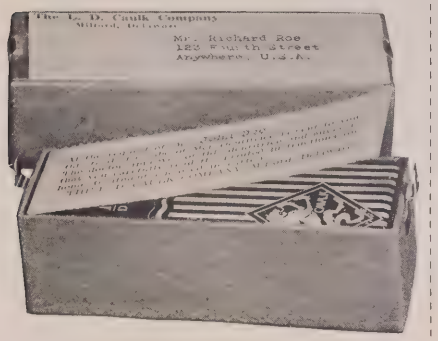
Then when one or two granules of No. 2, the white zinc-thymol, are melted by the warm placing instrument and gently spread in the cavity on top of Thymozin 1, hardening will take place in 30 seconds upon application of cold air.

You may be certain, when Thymozin fails to set in the cavity, that an excess of No. 1 has been used. The procedure then is to wipe out the cavity with cotton, chisel the walls with an excavator, and follow through the technique again—making sure the second time that a smaller quantity of Thymozin 1 is placed.

Of course the cavity must be dry before Thymozin is used. Liquid phenol or essential oils in the cavity will prevent the Thymozin from setting. Cold air will hasten the hardening.

Thymozin, alone, in deep cavities will give all necessary protection against acid irritation, pressure, and thermal shock under any kind of filling or restoration. The entire procedure takes only one minute of the operator's time.

Please Let Us Make at Least Six of Your Patients Acquainted with MER Dentifrice . . . . .



THE L. D. CAULK COMPANY
OF CANADA, LTD.
172 John St., Toronto, Ont.

Kindly send a trial size tube of Mer Dentifrice to each of my patients listed below.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

DR. _____

Address _____

This coupon may even be enclosed in an envelope that you are mailing to your dealer. He will forward it to us.

HAVE you ever wondered why so many patients ask you—"Doctor, what tooth-paste should I use?"

Of course, when you think about it, the reason is perfectly obvious. All of the tooth-paste advertisements in magazines are so emphatic in advancing conflicting claims that the essential facts are clouded and even distorted beyond recognition.

If you were suddenly deprived of your professional knowledge and had to consider this very important subject from the layman's level, the chances are you too would welcome sensible advice from someone who knew the requirements for the safe and effective tooth-paste.

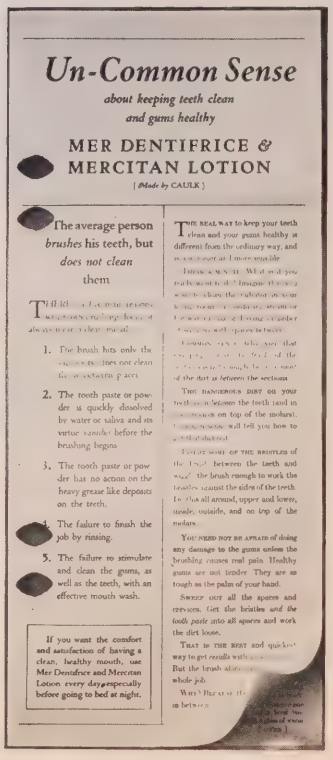
Mer Dentifrice is that product. It has been constantly presented to you and to the public for exactly what it is—*an efficient tooth cleanser.* Its properties have a professional basis of fact which appeal to dentists.

Therefore, we are eager to make your patients—six of them at least—acquainted with the tooth-paste that you can safely recommend—in fact, prescribe.

MER Dentifrice

"The Caulk Clinic Tooth-Paste"

This folder is the one enclosed in the carton. There is no claim nor recommendation printed in it with which you can not agree unreservedly. At the same time it informs the patient how to promote the proper mouth hygiene at home.



Un-Common Sense

about keeping teeth clean and gums healthy

MER DENTIFRICE & MERCITAN LOTION

(Made by CAULK)

The average person *brushes* his teeth, but *does not clean* them

THE REAL WAY to keep your teeth clean and your gums healthy is different from the ordinary way, and is a lot easier as I soon explain.

1. The brush hits only the [illegible] does not clean [illegible]
2. The tooth paste or powder is quickly dissolved by water or saliva and its virtue [illegible] before the brushing begins
3. The tooth paste or powder has no action on the heavy grease like deposits on the teeth.
4. The failure to finish the job by rinsing.
5. The failure to stimulate and clean the gums, as well as the teeth, with an effective mouth wash.

If you want the comfort and satisfaction of having a clean, healthy mouth, use Mer Dentifrice and Mercitan Lotion every day—especially before going to bed at night.

THE DANGEROUS DIRT on your teeth is in between the teeth (and in [illegible] on top of the molars). [illegible] will tell you how to [illegible]

YOU NEED NOT BE AFRAID of doing any damage to the gums unless the brushing causes real pain. Healthy gums are not tender. They are as tough as the palm of your hand.

SQUEEZE OUT all the spaces and crevices. Get the bristles *and the tooth paste* into all spaces and work the dirt loose.

THAT IS THE BEST and quickest way to get results with [illegible]. But the brush alone [illegible] whole job.

Again, Anatomy of Root-Canals

(*Continued from page 3*)

5. Dehydrate by immersing the tooth in a pure acetone solution for 6 hours.

6. Immerse the tooth in china ink, holding it at a temperature of 60° C. for 6 hours.

7. A thick gelatin solution is added to the china ink and the tooth is immersed in it for 2 hours. In this way the china ink which filled the root-canal or canals will be fixed and prevented from escaping.

8. Dry the tooth in air for 24 to 48 hours.

9. Decalcify the tooth in a weak nitric acid solution for 2 to 3 weeks.

10. Wash the tooth in running water for at least 48 hours.

11. Immerse the tooth in a 30% gelatin solution; the root surface will thus be covered.

12. Immerse the tooth in a 10% formalin aqueous solution for 6 hours. The tooth and gelatin are hardened.

13. Immerse the tooth in a liquid carbolic acid. In 2 or 3 days the tissues become transparent.

14. Preserve the specimen in wintergreen oil.

While Dr. Okumura has not considered it necessary to mention the details for preparing some of the materials required for this work, it is obvious that many will require this additional information.

Preparation of Materials

Step 3. Antiformin is specified. This is an alkaline solution of sodium hypochlorite largely used in the bacteriological laboratory. Its especial value lies in its property of liquefying various organic matters and of dissolving most varieties of bacteria. It is especially employed for the purpose of recognizing tubercle bacilli in the sputum; it liquefies the sputum so that centrifugation is possible and dissolves other bacteria.

Preparation of Antiformin (Solutions A and B made separately and mixed before use).

Solution A—Sodium Carbonate (dry powder) 15 grams. Chlorinated lime (Bleaching powder) 8 grams. Water 100 c.c.

Chlorinated lime in small tin cans may be purchased in any drug store. It is also known as bleaching powder and contains 30% available chlorine. Triturate the chlorinated lime with 50 c.c. of water gradually added until a uniform mixture results. Dissolve the sodium carbonate in 50 c.c. of warm water and add this to the chlorinated lime mixture contained in a porcelain mortar or other suitable vessel. Stir the mixture thoroughly and then transfer to a wetted muslin strainer. Return the first portion until the liquid passes through clear.

Solution B—Sodium hydrate —15 grams. Water—100 c.c.

Sodium hydrate otherwise known as caustic soda or soda lye may be bought in any drug store. It is put up in small metal cans. After the can is once opened the contents should be placed in a bottle, corked, and the cork sealed with wax.

For use, mix equal parts of solutions A and B. The mixture is antiformin.

Step 5. Acetone solution. This is pure acetone. It is a solvent chemically known as Dimethylketone C_3H_6O. It boils at 56° C. and is highly inflammable. It may be obtained from any drug or chemical supply house. It is used by Dr. Okumura as a dehydrating agent.

Step 6—China Ink or India Ink has been used in China from time immemorial and both in China and Japan is employed for writing. It consists essentially of fine lamp-black held together with fish glue. Some kinds are made with animal or ivory-black, others with lamp-black got from camphor or oil of sesame. A little musk or camphor is generally added as a perfume. Many attempts have been made to imitate China Ink. Almost all imitations consist of carbon ground up with gum, gelatine or fish glue but the quality and tint may vary according to the special carbon employed and the process of manufacture. China Ink should have a velvety black appearance, with a gloss which becomes very conspicuous on rubbing. It should produce a pure black homogeneous color on paper and should not run or become streaky if water is passed over it. The Chinese laundry is probably the best source of supply.

Step 7. Gelatin. This may be purchased in powder or flake form packed in paper cartons in any grocery store. Pure gelatin like Cooper's gelatin or Knox's gelatin and not the sweetened mixtures should be purchased. Simply heat a little water to boiling and stir in the gelatin. Ten grams of gelatin added to 100 c.c. of boiling water will make a thick solution.

Step 9. Weak Nitric Acid. A five per cent solution of strong nitric acid in water.

Step 12. Formalin 10%. The U.S.P. formaldehyde is diluted 1 part with 9 parts of water.

Step 13. Liquid Carbolic Acid. This can be purchased in any drug store or it may be prepared by liquefying the crystals by heat and mixing with 10% of water.

Step 14. Wintergreen oil. The natural oil of wintergreen, prepared from the leaf, is very expensive. $8.00 per pound wholesale. Artificial or Synthetic oil of wintergreen (methyl salicylate) if clear and colorless may be used and costs only 40 cents a pound wholesale.

As observed in the photograph Dr. Okumura preserves the specimens in shell vials with rubber stoppers. A piece of milk glass is placed in the vial so as to form a clear white background. The fluid in the vials is oil of wintergreen.

May we ask what your experience with MERCIREX *has been?*

SOMETIME during the past three years we have sent you samples of Mercirex Cream together with other pharmaceutical products.

Now then, we are keenly interested to know what you think of Mercirex. If you have used it personally, or have been responsible for its use by some friend or patient, won't you please relate the circumstances to us. This information is asked for, solely to satisfy our own inquiry and most assuredly not for advertising purposes.

A Stamped Post Card
is enclosed in this issue of *Milford News* for your convenience in writing your experience with Mercirex. *Will you please make use of it?*

The Dental Assistant and Her Duties

(*Continued from page 5*)

Card system for prophylactic work and examination.

Book of duplicate appointment cards.

Chandler system of record keeping.

Various types of appointment books.

Time clock and pad.

Loose leaf personal record book.

Record of office procedure book.

Reminder book.

Private record of patients book.

Check book showing preservation of cancelled checks.

Book of laboratory slips, daily schedule, telephone index.

Telephone message slips.

1 book of clippings.

Scrap book containing announcement cards, general practice.

Specializing, removal.

Professional cards, appointment cards, duplicate cards used to avoid misunderstanding in regard to appointments.

Reminder cards acceptance of appointment cards.

Reference charts to be used in referring patients, particularly in exodontia.

Courtesy cards.

Correct stationery.

Statements and receipts.

History sheets.

Examination sheets and charts, service and account records.

Collection sheets, production sheets, laboratory and material sheets.

Daily appointment charts and time slips.

Daily, monthly and yearly time production sheets, etc.

There were many more items included in this complete table demonstration that would take several pages to describe.

Demonstrator—VIOLA WATROUS

3. Orthodontic Assistance.

Preparation of models, bands, ligatures.

Charts and records.

Care of appliances.

Special plaster bibs, trays, etc.

Demonstrator—ANN MARVEL

This completes the group clinic.

6. Helpful Hints for the Wide Awake Assistant.
5th District Society of Dental Nurses and Assistants. ATLANTA, GA.

Holder for ligatures.

Holder for polishing crowns, made of clothes pins.

Wax holder for bunsen burner, made of small tin box cover.

Method of caring for saliva ejectors.

Sharpening of instruments, stones to be used, etc.

Broken instruments made useful.

Old scalers utilized.

Used x-ray films, cleaned and cut into strips for matrix bands.

Dull fissure burs made like new.

Old x-ray film boxes used for individual laboratory work.

These are only a few of the timely suggestions that were given at this table clinic.

Demonstrator—MRS. ELLA B. RAE

The Acting Vice Clinician was:
Jean Tallaksen of N. Y.

Photo 1419-A (*left*). The celluloid strip must not be coated with cocoa butter.

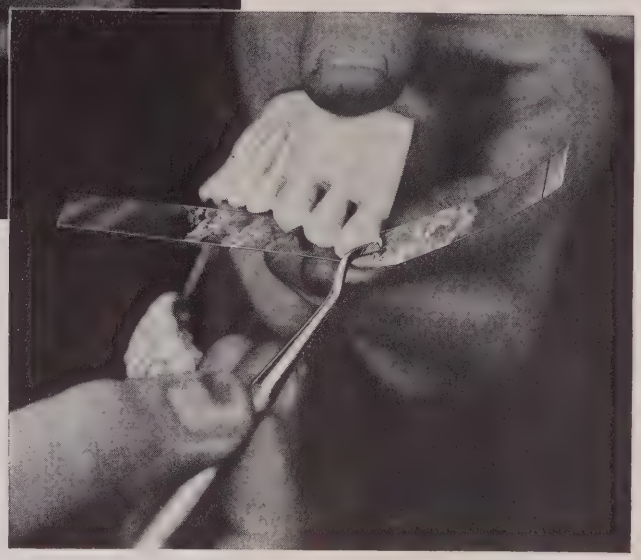


Photo 1419-B (*right*). Illustrates how Synthetic Porcelain comes in contact with the cocoa butter on strip during the placing operation.

When and *When Not* to Use Cocoa Butter in Synthetic Porcelain Technique

FREQUENTLY the question is asked whether or not the celluloid strip should be coated with cocoa butter. The correct answer is no, with all possible emphasis.

This practice is most objectionable from an operative standpoint. Besides it is really unnecessary.

Many operators have the mistaken idea that unless the strip is lubricated it will stick to the surface of the restoration when the time comes to remove it. Nothing of the kind.

If a clean celluloid strip is held immovable for fully three minutes to allow for the initial setting of Synthetic Porcelain it will then spring free upon releasing, leaving a highly glazed surface on the restoration.

Photograph 1419-A shows a strip that has been previously coated with cocoa butter, held in position, waiting for the insertion of the filling material into the cavity.

How would it be possible to avoid bringing the plastic Synthetic Porcelain in contact with the strip, and therefore the cocoa butter, during the placing operation as shown in photograph 1419-B?

A film of butter would be pushed down upon the lingual margin of the cavity with the result that there would be a greasy enamel margin! Also should the operator desire to add another portion of Synthetic Porcelain to the first already placed in the cavity, complete union would not take place because of this film of cocoa butter.

> "AFTER three minutes, release the strip and immediately coat the filling with cocoa butter. This prevents evaporation or absorption of water at the surface of the filling. Be careful not to put the butter on *hot*."

Therefore, cocoa butter should be used only on the surface of Synthetic Porcelain restorations, after removing the strip, for the following express purposes:

(1) To prevent the loss of water from the surface of the restoration.

(2) To prevent moisture from coming in contact with the restoration during its setting period.

(3) To lubricate discs, strips, stones, etc., when polishing the restoration so as to eliminate as far as possible frictional heat.

On the other hand cocoa butter must not be used in preparing the cavity or placing Synthetic Porcelain.

Pick up one of the tampons with pliers

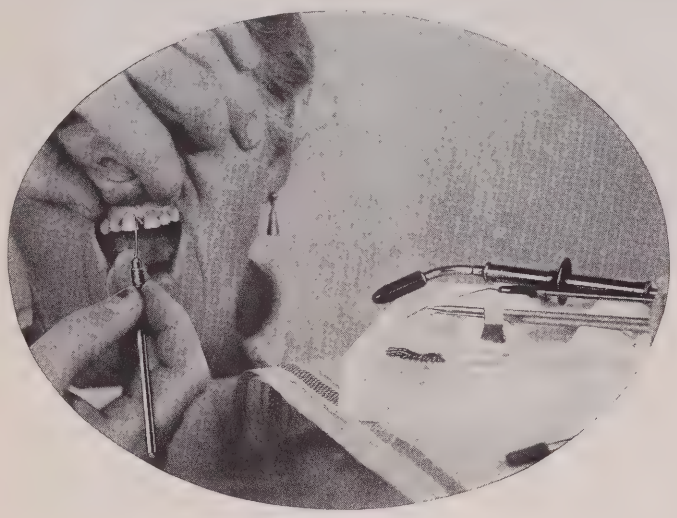
Touch the tampon against cotton blotter to absorb excess Fluid

Don't Drench the Tissues with Mercitan Fluid

MANY operators seem to feel that the tissues of the mouth affected by pyorrhea should be drenched with Mercitan Fluid. Apparently they reason that if a light application accomplishes good results, then a heavy application will be proportionately better.

By all means, this idea is incorrect. The purposes of the Fluid are to cleanse the affected parts and to rid them of all necrosed tissue and debris. Therefore, just enough Fluid should be sparingly applied over the affected tissues and into the pockets, so that there will not be an excess.

The Mercitan tampons provide the most convenient means for carrying the Mercitan Fluid into the pockets. Take a bundle of tampons and hold by one end between thumb and finger. Spread out the other ends fan shape and place bundle in the basin of tray containing the Fluid. Spread out in this fashion, it is easy to pick up the tampons one at a time with the Stellite pliers.



Gently push the tampon under the gum and down into the pocket

The tampon, upon being picked up, may be dripping with Fluid. Touch it to the cotton blotter which is attached to the treatment tray. All excess Fluid will then be absorbed.

Hold the tampon in the pliers against the tooth surface just below the gum margin. Then with a Mercitan applicator gently push the tampon under the gum and down into the pocket. Several tampons can be used in the deep pockets.

During the first stage of treatment the tampons should not be left in the pockets longer than two or three minutes. Later as the case progresses in improvement they may remain up to but not more than five minutes.

A Complete Set of Pulp-Canal Instruments at a Saving of $3.50

EFFICIENCY and speed are desirable in any system of pulp-canal technic no matter what method the operator may be using. Therefore although the Freepas instruments were designed particularly for Osogenation, they are also superior for all operations in the pulp-canal.

SET CONTAINS:

PULP-CANAL EXPLORER (two sizes)	
Long mounted, per dozen	$1.50
BARBED BROACH (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50
HATCHET-EDGE PICK (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50
APICAL CURETTE (four sizes)	
Long mounted, per dozen	1.50
Short mounted, per dozen	1.50

Each size in boxes of half-dozen

DIAGNOSTIC WIRES (one size)	
Per box of one dozen	.75

Regular Price $11.25

Introductory Price $7.75

Wishing You and Yours The Season's Compliments

Protection That Only REPELAC Can Give

THE kind of pulp protection that is necessary in dentistry is not provided by resin, balsam and other gums dissolved in ether, alcohol, or chloroform. They are sluggish dryers, brittle when dry and not entirely impervious.

The most important function of a cavity lining is to repel or rather stop any free acid which may diffuse from the mixed cement in its plastic state. Under metal fillings it guards against thermal shock.

Repelac has certain unique qualities which make it a far superior cavity lining. It is tough, non-contracting, impervious, acid-proof and chemically neutral.

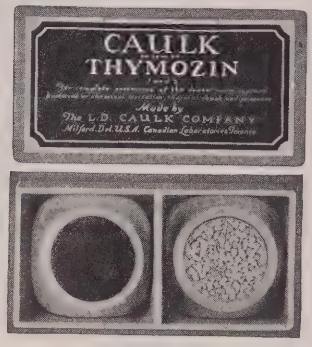
HERE ARE THE ITEMS which aid in making Synthetic Porcelain Restorations Permanent

A Small Specialty With A Hundred Uses

THE most economical way to buy Repelac is in this combination package—two bottles of Repelac and one bottle of Solvent at a special combination price of $1.50.

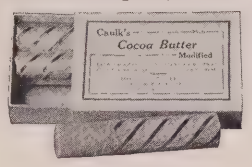
Single bottles also can be obtained from any dental supply dealer at $0.60.

The Solvent is used to thin the Repelac when desired; also to dissolve Repelac that has been painted on a tooth or gums; and to cement celluloid—for example when the size of a Crown Form needs alteration. The Solvent sells for $0.60 per bottle.



A Safe Bulk-Lining in Less Than Sixty Seconds

SECURE protection against bacterial invasion, chemical irritation, pressure, and thermal shock is what is required in deep cavities. Thymozin alone provides it. Even when a pulp has been accidentally exposed the chances are in favor of saving it if Thymozin is used promptly. It is sold in a complete package at $1.75, or separately for renewal of either No. 1 or No. 2 at $0.90 each.



You Can't Use a Grease Spot

YOU will not be bothered with softening of Caulk Cocoa Butter. It is especially purified for dental use. The melting point has been raised to 110° F. by the manner in which it has been modified and treated.

The cocoa butter holder provides a convenient means for holding the stick. You don't need to touch it.

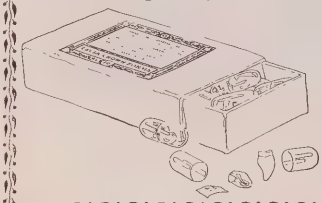
Caulk Cocoa Butter comes in packages containing three sticks at 25 cents per package. The Holder is $2.75.

A Safe Way to Make Permanent Jacket Crowns

LOOK at a Caulk Crown Form. It will show you how beautifully the moulds have been cut to match the contours of natural teeth. Is it any wonder, therefore, that permanent jacket crowns and tip and corner restorations can be made with Crown Forms and Synthetic Porcelain!

Economical stock assortments of Caulk Crown Forms can be supplied by your dealer in boxes of 10 and 100.

Prices are $1.25 and $10.00 respectively.

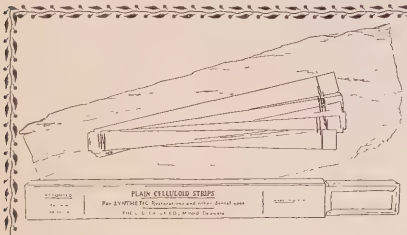


The Kind of Material the Restoration is to be Made Of

THE Synthetic Porcelain Shade Guide shows the natural translucency, life-like blending of shades, etc. When not in use the specimens hang immersed in water, clean and intact. Price $2.60 at your dealer's.

Your Patients Will Thank You

WHEN a dressing is to be changed or some other short time operation is to be done, instead of fussing with the rubber dam use a Hare Mouth Prop and cotton rolls. This gives a dry field and the relief will be grateful to any patient who has been used to gasping under the rubber. The set of three suits every part of the mouth, posterior and anterior, upper and lower. Price of complete set $3.85. Individually they may be bought at $1.15 for posteriors (bicuspid and molar) and $1.65 for anterior.



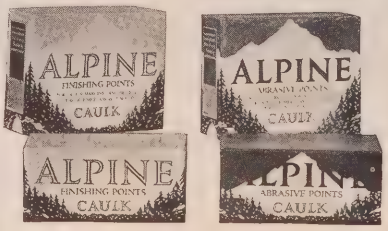
Tough and Strong, But Not Awkward

HARD pulling and twisting around and between teeth make conditions too difficult for strips of ordinary celluloid. Special curing makes Caulk Celluloid Strips tough and strong, but not stiff; and pliable without being flimsy.

Your dealer carries an assortment of four boxes from which you can select. The first box contains 40 thin strips (3/1000 of an inch) and 20 thick (5/1000 of an inch). The second box contains 100 thick (5/1000 of an inch); the third, 50 thin (3/1000 of an inch); and the fourth, 50 very thin (1/1000 of an inch). The price of each box is 60 cents. Ask to see the complete assortment.

A Small Stellite Set

THESE instruments are for mixing and placing Synthetic Porcelain and Cement. They are immune to attack by all cement liquids, and are so hard that Synthetic Porcelain powder does not even scratch the surface. The set includes Pliers, Spatula and three double-end Plastic Instruments, all of solid Stellite. New price complete, $14.00.



They Outwear Two or Three Other Points and They Are Snow White

SO that you may try the Alpine Points, and thereby discover for yourself how they will grind more smoothly and evenly than others, have your dealer send an assortment to you for examination. Just tell him whether you want them mounted on mandrels to fit chuck handpieces or right angles.

The Finishing Points are $2.60 per dozen and Abrasive Points are $2.10 per dozen. Any assortment desired can be supplied by your dealer.

12·50

MERCITAN LOTION OUTFIT

12 eight-ounce Bottles & 50 two-ounce Bottles *for* $12.00

The Economical Way to purchase

MERCITAN LOTION

(CAULK)

By the time Mercitan Lotion is diluted ready to be used you actually have four times the original quantity — a total of 384 ounces from the eight-ounce bottles and 400 ounces from the two-ounce bottles.

No wonder it is the economical purchase!

By way of contrast with others, Mercitan Lotion has

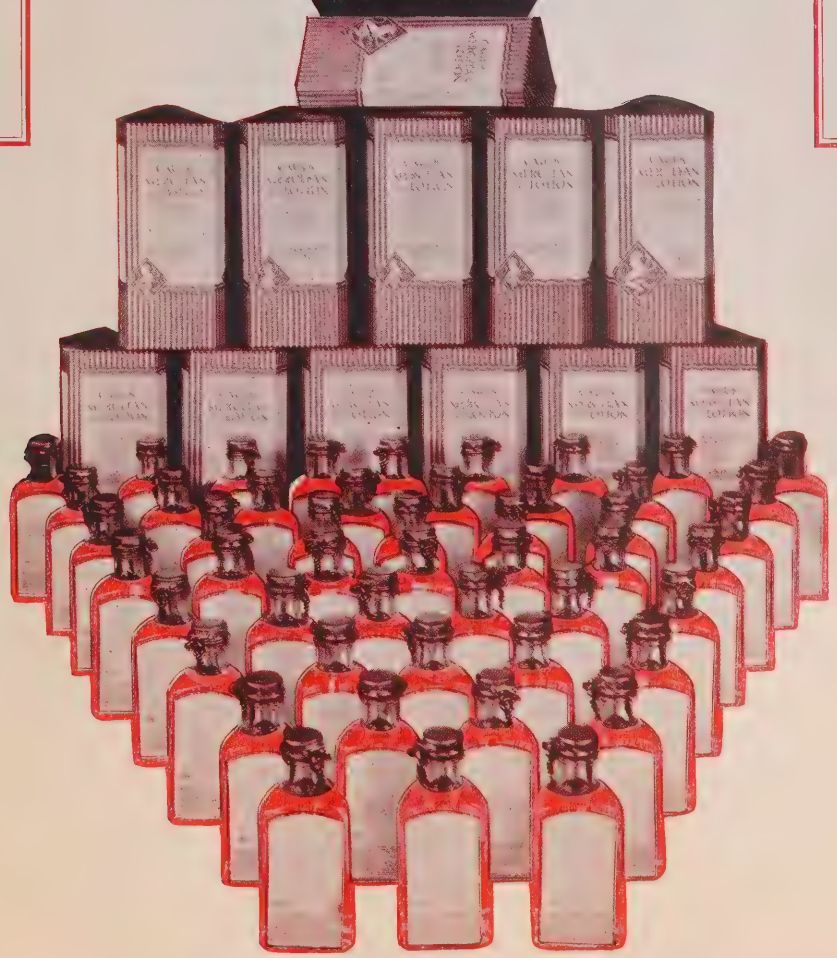
DELIGHTFUL TASTE

DEODORIZING FRAGRANCE

DEFINITE GERMICIDAL ACTION

RAPID HEALING PROPERTIES

NO DANGER OF IRRITATING



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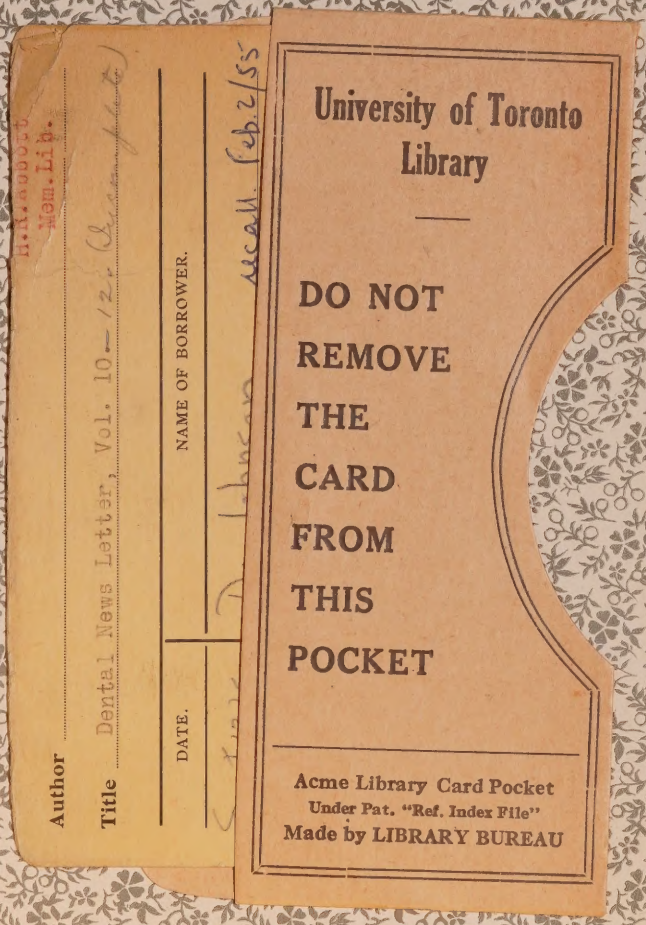
The Armac Press Limited
Toronto, Canada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